VOICES FROM THE MARGIN: THE EXPERIENCES OF BLACK WOMEN ADMINISTRATORS IN STEM AT PREDOMINANTLY WHITE INSTITUTIONS

by

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(Under the Direction of NATOYA HILL HASKINS)

ABSTRACT

This study is a phenomenological inquiry of the experiences of Black women administrators who provide recruitment and retention programs for students of color in STEM at predominantly White institutions (PWIs). Using a Black feminist theoretical framework, the researcher conducted semi structured interviews and collected photo elicitation from 10 Black women administrators in STEM at predominantly white institutions from across the country. The researcher sought to determine how these women were marginalized based on their positions as administrators, their locations in PWI and STEM department settings, and their identities as Black women. The core tenets of BFT that were applied are: how they manage their outsider within status in academia that rejects their intellectual contributions; how they deal with the interlocking systems of oppression that they experience based on their intersecting identities; and empowering them to reject negative stereotypes about Black women by providing a self-valuation and self-definition of the importance of their professional roles while "talking back" to the dominant discourse in academia (Collins, 1986; hooks, 1984). The findings of this study were that the Black women administrators in STEM felt like "this is part of who I am as a person" in reference to managing their intersecting identities in addition to being Black women;

felt like everyday life “is just always a struggle” as they navigated those identities in multiple environments, including STEM departments, PWIs, and the nation; they sought credibility and respect “for the value they brought to the table”; and needed “a place where they can be themselves” by creating sisterhoods with other Black women in similar roles and identifying White and male allies. The researcher sought to add to the body of knowledge regarding the experiences of Black women at PWIs in general, and Black women administrators in STEM programs specifically, as well as provide recommendations for the counseling and student affairs profession, predominantly White institutions, and federal funding agencies.

INDEX WORDS: Black women administrators, STEM, African American women, education, PWIs, Marginalization, Predominantly White institutions, Higher education, Academia, Phenomenology, Black feminist thought, BFT,

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DEDICATION

This dissertation is dedicated to the powerful women in my life who have encouraged, motivated, and inspired me throughout my entire life and especially during this academic journey.

My grandmother, Jean Allen Wilson.

Thank you for the gift of education. You provided an example of a wise, graceful, and faithful Black woman who loved her family and loved God. You passed the same week that I completed my comps. Thank you for waiting until I successfully completed that arduous process to make your transition. I know you are looking down from Heaven and are proud of your granddaughter and I can hear your voice every once in a while saying, "You've got it, Granddaughter."

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I have fought the good fight

I have finished the race

I have kept the faith

2 Timothy 4:7

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CHAPTER 1

INTRODUCTION

One day during the first few months in my new position, I was tasked with planning an all hands meeting with the senior faculty members and other program managers on the project. During this meeting, we were linked with two other institutions via a conference call so a total of 10 people were present either in person or on the phone. After a spirited debate about the best ways to recruit qualified students of color into a science and engineering summer research program, I raised my hand and began my statement with, "I think it would be best if we…" and before I could finish the statement, my supervisor, a much older White male, who had been tenured at the institution for several decades before my arrival cut me off and said, "Well I am glad to see that you are finally thinking." This statement disrupted my train of thought and I was only able to fumble through my remaining comments. The rest of the participants looked at me awkwardly and changed the subject. I was the only Black person in the room and one of two women of color in the meeting; the other woman was connected with us via teleconference. After the meeting, I rushed into the restroom, looked in the mirror and willed myself not to cry- but it was a moot attempt. As the tears streamed down my face, I said to my reflection in the mirror, "You will be okay and you do belong here." (Jackson-Truitt, Personal Reflection, 2015).

The impact that Black women administrators have had in higher education and the potential to expand their roles in science, technology, engineering and mathematics (STEM)

programming within higher education is vast (Ovink & Veazey, 2011; Patitu & Hinton, 2003; Rice & Alfred, 2014). As the United States seeks to produce more qualified STEM professionals, we will need interventions that are effective at retaining more students in STEM fields, particularly students of color who are traditionally under-represented in those majors (Hurtado, Cabrera, Lin, Arellano, & Espinosa, 2009). Unfortunately, most of the conversation about effective STEM retention programming is happening from the top down (Malcom, 2015).

Federal funding agencies, faculty members who may not fully understand the experiences of students of color, and higher level university administrators-who are at the top of the academic hierarchy- often make the decisions that impact student retention programming, without input from program administrators themselves (Campbell, Skvirsky, Wortis, Thomas, Kawachi, & Hohmann, 2014). Many of the current research studies about STEM retention for people of color are focused on the experiences of faculty or students, but rarely on the experiences of those who actually deliver the program interventions-program administrators (Chubin, Depass, & Blockus, 2009; Hurtado, Cabrera, Lin, Arellano, & Espinosa, 2009). Shirley Malcom (2015), current president of the American Association for the Advancement of Science and longtime educational scholar of equity and inclusion in STEM fields, stated that most interventions are aimed at fixing students rather than fixing broken educational systems. In a higher educational system that is governed by a hierarchy of power and that has a history of excluding women and people of color, the goal of this research study is to hear from the voices at the margins-the Black women administrators who provide STEM retention programming for students of color.

This phenomenological research study documented the experiences of Black women administrators in STEM retention programs for students of color at predominantly White institutions (PWIs). In this first chapter, I will provide a brief history of Black women in higher

education and the theoretical framework, Black feminist thought, that guides the discussion, and an overview of STEM education in the United States. Next, I will discuss the research format of this study, including the purpose, sampling procedures, and significance. I will conclude with the delimitations, definition of frequently used terms and a summary of the chapter.

Black Women Administrators in Higher Education

Researchers have shown that Black women administrators have a positive impact on the recruitment and retention of students of color, yet continue to face institutional challenges and barriers due to their gender and race (Hughes & Howard-Hamilton, 2003; Myers, 2002). In one of the earliest research studies about Black women in higher education, Williams (1989) indicated that having them in key administrative roles could serve as an encouragement to prospective and current students. Jackson (2003) stated that recruiting and retaining Blacks into student affairs leadership positions has a positive impact on the experiences of students of color on college campuses and that campus administration should be as diverse as the overall student body. Miller (as cited in Hughes & Howard-Hamilton, 2003) emphasized the need for a "critical mass" of Black women in leadership positions on college campuses and that their very presence is a motivation for other Black women and students of color to persist. More recently, Domingue (2015) studied Black women college students at PWIs and found that they sought out other Black women leaders on campus in order to receive mentoring support from these women. The author also suggested that these mutual mentoring relationships-between Black women students and Black women faculty and staff-could influence the retention of both groups (Domingue, 2015). Waring and Bordoloi (2012) stated that as academia becomes more diverse, senior academic professionals or university officials must understand the experiences of women and people of color to improve the campus climate, which benefits all students.

Nonetheless, there are well-documented institutional barriers that exclude Black women from thriving on predominantly White university campuses (Harley, 2008; Patitu & Hinton, 2003). In an earlier study on Black women faculty, a researcher found that they teach more classes, serve on more committees, mentor more students (particularly those of color) and receive less support than their White and male counterparts (McKay, 1997). Other researchers echoed the theme of work overload. Harley (2008) stated that Black women faculty at PWIs suffer from race fatigue and are treated as the "maids of the academe" due to the high level of service commitments that are not counted towards their promotion and tenure. While most universities state that they have a focus on diversity, researchers show that often people from diverse backgrounds, like Black women, continue to remain marginalized and excluded (Joseph, 2012; Ortega-Liston & Rodriguez Soto, 2014). In an environment that can be both empowering and alienating, I seek to understand the experiences of Black women administrators in STEM at predominantly White institutions (PWIs) and if they have been marginalized due to their intersecting identities.

Brief Historical Overview

The history of Black women administrators in higher education is wrought with challenges and triumphs. Based on the United States' history of slavery, segregation, and gender oppression, a career in education was one of the earliest forms of respectable employment available to Black women (McKay, 1997) but eluded them due to segregation within the halls of academia. Some hallmark researchers examined the lived experiences of Black women within higher education, at both the faculty and administrative level, and documented the various challenges and barriers they faced (Howard-Vital, 1989; McKay, 1997; Moore & Wagstaff, 1974). Yet, Black women persevered in these spaces because entry into academia represented a

form of empowerment through education and scholarship (Howard-Baptiste & Harris, 2014). Other researchers who showed how Blacks sought freedom from oppression through higher education support this sentiment. Johnson-Bailey (2006) conducted an archival study of 25 years' worth of data regarding Blacks within adult education. She identified the three most common themes as *education for assimilation* into the more powerful, White mainstream culture; *education for cultural survival* in order to preserve the rich traditions and history of the race; and *education for resistance* against an unjust economical, judicial, and educational system (Johnson-Bailey, 2006). Historically, Black women have pursued education for assimilation, cultural survival, and for resistance and I argue that contemporary, Black women administrators are uniquely poised to pass those lessons along to their students as well.

For the past century, Black women have continued to make great strides within academia. During the Jim Crow era from the late 1800's until the 1960's, Blacks were ruled by the racial caste system that severely restricted their movement, career choices, and educational opportunities. At this time, Black women sought entry into spaces that were historically closed to them in order to fulfill their professional goals, seek parity with their White and female peers, and give back to their communities (Jones, Dawkins, McClinton, & Glover, 2012). Black women also used the field of education as a means to better themselves, improve their financial stations in life, and challenge the idea that they were inferior learners (Evans, 2007). In the late 1880's, Black women were just beginning to obtain administrative positions within academia when both Fanny Jackson Coppin and Josephine Silone Yates were named to leadership roles at colleges. Over time, their numbers in the educational field would steadily increase. In 1910, less than 2% of the population of Black women was employed in the educational field, compared to over 44% who were employed in domestic work (Dubois & Dill, 1910). By 1970, 12% of Black

women worked in education, 20% in administrative roles, and 17% in household work (Bailey & Collins, 2006). When Black women began entering academia, they were employed at historically Black colleges and universities in positions of leadership such as college presidents, deans, and departmental chairpersons but they were not able to occupy those same roles within White academia (Jones, Dawkins, McClinton, & Glover, 2012; Mosley, 1980).

Once the federal government struck down desegregation laws, Black women enjoyed more opportunities for career advancement within education. In 1954, the Supreme Court heard the, *Brown v. the Board of Education case,* and ruled to end "separate but equal" educational facilities in the United States (Patterson & Freehling, 2001). After the desegregation era, Black women began working at predominantly White institutions, but mostly in service level jobs (Wolfman, 1997). In 1964, the federal government passed Title VII of the federal Civil Rights Act that provided equal employment opportunities for all women, thus, opening the door for women to seek work at colleges and universities, spaces that were predominantly male up to this point. Executive Order #11375 expanded previous affirmative action policies and encouraged employment opportunities for women and people of color and Title IX sought to provide equal access to women within all federally funded educational programs (Cohen, 1998). With this new legislation, Black women academics sought employment at PWIs but were ranked and compensated at the lowest rates possible (Evans, 2007).

Two decades later, Black women had begun to make some professional ground at predominantly White institutions but still had a long way to go to reach parity with their White and male peers. By the late 1980's, more Black women occupied leadership roles at predominantly White institutions. Williams (1989) interviewed 54 Black women who were in middle or upper administrative positions at predominantly White institutions and referred to the

Black women deans, presidents, vice presidents, directors, and chairpersons as "representing a new breed of Black women administrators at predominantly White colleges and universities. Their existence is relatively new and represents a welcome addition to higher education" (p.110).

Yet, as these early Black women pioneers carved out a space for themselves at PWIs they experienced many challenges. Howard-Baptiste and Harris (2014) provided a historical overview of the first Black women to earn PhD's in this country and compared it to their own lived experiences while earning their doctoral degrees. The pioneering women in their research encountered hostility and resistance from peers and students, lower financial compensation, de-valuation of their intellectual ability and a lack of camaraderie within their academic units (Howard-Baptiste & Harris, 2014). They stated that Black women in the academy face very similar challenges today (Howard-Baptiste & Harris, 2014). While Black women have made tremendous progress within White academic environments in only a few decades, they continue to experience race and gender oppression. Concurrently, Black women are integral to the success of all students, particularly students of color who major in STEM at predominantly White institutions.

STEM Education in the United States

In a world that becomes more reliant on technological advances each day, it is imperative that the United States educates professionals who can create the technology we need to remain competitive in a global economy. Students who are proficient in STEM fields will have the best chance of being highly sought after for future employment (National Science Foundation [NSF], 2014), will see the most potential for job growth over the next decade (U.S. Department of Education [U.S. DOE], 2013), and experience the lowest levels of unemployment (Crotty, 2014; Engler, 2012). Yet despite these promising reports, many American high school students are not

prepared to major in a STEM field, or once they enter a STEM major in college, do not complete those degrees for a variety of reasons (Snyder & Dillow, 2011).

This lack of qualified STEM professionals, in comparison to other countries, influences our future economic growth (Leadership Conference Education Fund, 2015). Ong, Wright, Espinosa, and Orfield (2011) stated, "Only 16% of U. S. undergraduates seek degrees in STEM, compared to 47% in China, 38% in South Korea, and 27% in France" (p.173). Researchers at the Center on Education and the Workforce at Georgetown University estimated that by 2018, the United States will create 780,000 jobs that require a graduate degree in a STEM field but will only educate 550,000 native born Americans to fill the need (Carnevale, Smith & Strohl, 2010). In another study, researchers projected that the United States will need one million more STEM professionals than are already in the pipeline in order to maintain our current top position of economic competitiveness (President's Council of Advisors in Science and Technology [PCAST] report, 2012).

With the number of people of color projected to increase dramatically over the next few decades, the traditional source of engineering professionals-White men-will no longer be adequate to meet the need (Ong, Wright, Espinosa & Orfield, 2011). The percentage of White people in the United States has declined every decade since 1940 and will continue to do so (United States Census Bureau, 2014). According to the most recent demographic data that includes those who identity as Hispanic (who may identify as any race), White people comprise 79% of the total United States population, Blacks comprise 14%, Asians comprise 6%, and multiracial people are 2.5% (United States Census Bureau, 2014). However, those numbers are projected to shift dramatically by the year 2050-non Hispanic Whites will comprise less than 50% of the population, and the numbers of Asians and multiracial people will nearly double

(United States Census Bureau, 2014). As this country becomes more racially diverse each decade, it must focus on nurturing the professional talent from all racial groups instead of relying on the historical methods of recruiting and retention and Black women administrators in STEM are key to expanding the pipeline of potential talent.

Retention of Students of Color in STEM

In order to develop the one million new STEM professionals that this country is projected to need (PCAST report, 2012), universities must find new ways to support programs that are effective at retaining students of color who fare worse than all other students in completing STEM bachelor degrees. Although they enter STEM majors at the same rate as their White and Asian counterparts and remain in those majors initially, students of color do not complete STEM degrees at the same rates (American Council on Education, 2006, NSF, 2014).

When dissected further by race, the numbers of STEM degree completion are much lower. Since 2000, the number of science and engineering degrees earned by most racial and ethnic groups has increased, reflecting shifts in the population demographic data (NSF, 2015). Yet, Hispanic/Latinos, American Indians and Alaskan Natives are still vastly under- represented in STEM degree completion when compared to their percentages in the overall United States population (Towns, 2010). Furthermore, for the past 15 years, the percentage of STEM degrees earned by Black students has remained virtually flat (NSF, 2014).

To address the attrition of students of color from STEM majors, millions of dollars are spent each year on retention programs for this population. For example, the United States Congress appropriates $7.4 billion annually to the National Science Foundation (NSF), and $866 million, or around 10% is for programs focused on diversity in STEM (NSF, 2014). Each year, the Howard Hughes Medical Institute (HHMI) spends about $85 million on science education,

some of which goes towards initiatives aimed at students who are under-represented in the biomedical sciences (HHMI, 2015). In addition to these longstanding sources of federal funds for STEM education, the White House has developed a more ambitious plan to address the national deficits in STEM degree completion by focusing on all levels of the educational pipeline (U.S. DOE, 2013). In response, the National Science Foundation created a new $123 million program aimed at increasing undergraduate retention in STEM majors (U.S. DOE, 2013).

Despite these ambitious spending plans, the STEM degree completion for most minority groups has not dramatically improved in decades (NSF, 2014). Researchers show that students of color are leaving STEM fields at rates that are higher than their White and Asian counterparts (Chen, 2013; Chubin, Depass & Blockus, 2009). These results beg the question, "What can we do differently to increase the numbers of students of color who complete STEM degrees?" I argue that we must start by elevating the voices of the Black women who provide these programs, yet who themselves may experience marginalization based on their identities.

Black Women Administrators in STEM

Black women administrators have always been important to student retention on university campuses. Historically, Black women administrators were the first and most frequent point of contact between students and the university administration, they were more accessible and less intimidating than faculty, and were readily sought out by students who needed support (Johnson, 1998; Lee, 1999; Williams, 1997). Today, Black women administrators continue to serve as mentors for students of color even if that is not within their official job requirements (Guiffrida, 2005; Thompson & Dawkins, 2012) and they have an understanding of intersecting identities based on their own race and gender (Collins, 2000).

Furthermore, Black women administrators are able to draw from their own experiences with being a woman and a person of color in a predominantly White environment, and integrate that knowledge into program delivery (Domingue, 2015; Patitu & Hinton, 2003). One scholar declared that students of color need more than someone to provide academic advising and career counseling, they need the emotional and psychological support that a same race/same gender mentor can provide (Grant, 2012), a role often filled by Black women administrators.

Based on this literature, Black women administrators who are at the helm of STEM retention programs may be well equipped to meet the programmatic and social needs of students of color due to their own experiences with being a racial, ethnic or gender minority in a predominantly White setting (Domingue, 2015; Patitu & Hinton, 2003; Rodgers & Summers, 2008). Additionally, many researchers have found that Black women administrators in STEM are integral to the retention of all students and particularly for students of color (Domingue, 2015; Ovink & Veazey, 2011). For example, in a multi-year study of STEM retention programs at PWIs, researchers found that most of the program directors, who were women of color, were the most instrumental aspect of the program due to their individualized mentoring, advising, and frequent contact with the students (Ovink & Veazey, 2011). Ong, Wright, Espinosa, and Orfield (2011) conducted a meta-analysis of 40 years' worth of research about women of color in STEM. One theme the researchers identified was that students of color in STEM seek out administrators and faculty from racial/ethnic minority backgrounds, when available, to help them navigate majority White environments (Ong, Wright, Espinosa, & Orfield, 2011).

Black women administrators are at the helm of many STEM retention interventions but face challenges within predominantly White institutions themselves (Harley, 2008; Henry, 2010). However, there is limited research that is specifically centered on the experiences of

Black women administrators in STEM. With this research study, I aimed to understand the experiences of Black women STEM administrators and how their lived experiences inform their professional practice. By highlighting the collective standpoint of Black women administrators in STEM, I elevated their voices and provided some institutional implications for the support of these women. By understanding their experiences, university leaders can learn how to better support them and the students they reach.

Black Feminist Theoretical Framework

"I am a Black feminist. I mean, I recognize my power as well as my primary oppressions come as a result of my Blackness as well as my Womanness, and therefore my struggles on both of these fronts are inseparable." Audre Lorde (1985)

I applied a Black feminist framework to this study in an effort to explore the current realities of Black women administrators in STEM, as they navigate their gender, race and other intersecting identities in predominantly White and male environments. Specifically, this theoretical lens allowed me to understand the intersecting experiences of racism and sexism for Black women, which is often excluded from the larger discussions. Winkle-Wagner (2009) studied the experiences of Black women at PWIs and found that for these women, "race was gendered"-meaning that the voices of Black women were excluded from race based discussions- and "gender was racialized"-meaning that discussions of womanhood were centered around White women (p.143). Many other scholars have applied Black feminist thought to studies about the experiences of Black women in higher education (Dominguez, 2015; Henry, 2010; Hinton, 2010; Howard-Hamilton, 2003; Johnson, 2015; Sule, 2011). Due to its' emphasis on the intersecting identities of Black women, especially, race and gender, it is appropriately applied here.

Black feminist theorists seek to understand the experiences of women of the African Diaspora through the lenses of marginalization based on their race, gender, social class and other identities; their "outsider-within" status that both privileges and oppresses them in professional settings; and encourages them to use their unique, shared experiences to tell their own stories, on their own terms using their own voices (Collins, 1986, 2000). Collins (1986) initially coined the "outsider within" phrase as a status given to Black women domestics who were privy to the inner workings and insider information from White families, while still being treated as an outsider. She later applied the "outsider within" status to Black women in academic settings, who she found were assimilating and performing social norms within a White, male, environment and though they were privy to certain classified information, these women were still outsiders.

Collins (1989) extended this work in her discussion of the "White, male controlled knowledge validation process" which refers to the ways in which knowledge is validated and considered true. She stated that some of the negative impacts of the White, male controlled knowledge validation process within academia are the exclusion of Black women from positions of authority, ostracizing those who challenge stereotypical assumptions, and rejecting ideas that counter the notions of Black or female inferiority (Collins, 1989).

This research study examined the "outsider within" status of Black women administrators who provide STEM programming at predominantly White institutions and if they have been marginalized based on their race and gender. The outsider within tenet of Black feminist thought is applicable to the experiences of Black women in academia in general, and within STEM settings specifically, because White men have predominantly occupied those spaces, and those spaces have a history of oppressing women of color (Ortega-Liston & Rodriguez-Soto, 2014). In addition, the academic culture of STEM departments minimizes the voices of Black women

administrators who may be better equipped to understand the needs of students of color and implement culturally appropriate interventions.

Purpose of the Study

Black women administrators are integral to institutions of higher education (Patitu & Hinton, 2003), yield better educational outcomes when recruiting and retaining students of color (Jackson, 2003; Towns, 2010), yet face challenges and barriers during their employment that affect their ability to produce positive outcomes for their students (Gardner, Barrett, & Pearson, 2014). Furthermore, universities need new and innovative ways to increase the retention of students of color who are under-represented in STEM fields because the historical methods are producing the same results in many cases (NSF, 2014; PCAST, 2012). This study examined the lived experiences of Black women administrators who work in STEM retention programs for students of color on predominantly White university campuses. Using a Black feminist theoretical framework, I discovered how these women are marginalized due to their positions as administrators, their locations on predominantly White campuses and within STEM programs, and their identities as Black women.

Research Question

Black women administrators have experiences with being an outsider within the larger context of STEM departments and PWIs (Ong, Wright, Espinosa, & Orfield, 2011); have been marginalized based on their gender and race (Henderson, Hunter, & Hildreth, 2010); and their intellectual contributions are often excluded from the dominant academic discourse (Collins, 1989). Using a phenomenological approach to collecting data, my research question is:

How do Black women program administrators in STEM at PWIs experience intersecting marginalization based on their positions (as administrators), their locations (within STEM and PWI spaces), and their identities (as Black women)?

Methodology and Sampling Procedures

I conducted a phenomenology of Black women STEM administrators at predominantly White institutions. Phenomenology is a form of qualitative research in which the researcher seeks to understand the lived experiences of the subjects, usually by conducting interviews (Moustakas, 1994; Seidman, 2013). This approach has been effective in educational and counseling settings with people of color and is appropriate here (Creswell, 2014; Hays & Singh, 2012). Using semi-structured interviews with questions framed in a Black feminist thought and phenomenological context, I examined the lived experiences of ten Black women administrators who provide STEM programming for students of color on predominantly White campuses.

After receiving approval from the Institutional Review Board (IRB) at the University of Georgia, I used a purposeful, criterion sample to develop a list of potential participants based on a predetermined set of criteria (Patton, 2005) and sent them a recruitment email. After receiving their consent to participate, I sent a demographic questionnaire, informed consent form, and photo elicitation instructions via email. After the demographic questionnaire form was completed and returned, I contacted the women to schedule a phone interview and continued interviewing participants until I reached saturation (Seidman, 2013). After gathering the interview data and photos, I transcribed the interviews and completed the phenomenological data analysis process as outlined in chapter three.

Significance of the Study

There is a need to conduct research on the experiences of Black women STEM administrators at predominantly White institutions who are so integral to the educational outcomes for all students and for students of color specifically. Numerous researchers have shown the positive impact that Black women administrators in higher education have on educational outcomes (Jackson, 2003; Patitu & Hinton, 2003; Villalpondo, 2002). For example, Villalpondo (2002) called for institutions to support administrators who are actively engaged in diversity initiatives, spaces that Black women administrators often find themselves in; Jackson (2003) found that Black women in student affairs were integral to the success of both White and Black students; Patitu and Hinton (2003) stated that these women are integral to the success of Black students particularly, because they provide mentoring, advising and serving as role models while bringing a multicultural perspective to their institutions; and Towns (2010) found that students of color need role models on campus who resemble them. However, there is very limited research on the specific and unique experiences of the program administrators who are charged with producing positive educational outcomes for students of color in STEM. Specifically, I aim to expound on this previous research by first highlighting the experiences of Black women administrators in STEM and then identifying ways that predominantly White institutions can better support these women.

Definition of Terms

In order to provide clarity, I will provide the following definitions of some frequently used acronyms in this study:

1. **STEM-**science, technology, engineering, and mathematics fields of study (NSF, 2014).
2. **Students of color**-refers to the racial and ethnic background of students who are traditionally

under-represented in STEM majors. These include Black, Hispanic/Latino, American Indian or Alaska Native, and Pacific Islanders or Native Hawaiians (NSF, 2014).

3. **Under-represented**- when the number of a racial/ethnic group within a field is lower than the percentage of that group within the overall population (Towns, 2010).
4. **NSF**-National Science Foundation.
5. **Administrator-** a person in an upper level, policymaking position on a college campus who may also have a staff function. Titles include but are not limited to Dean, Director, Vice President, Department chairperson and the assistants of associates to those roles (Williams, 1989). These persons may also supervise or have authority over the women in this study.
6. **Black women administrators in STEM**- also referred to as 'program administrator'; women of African descent who oversee programs that provide STEM focused recruitment and retention interventions to students who are traditionally under-represented in STEM fields.
7. **HBCU**-historically Black colleges and universities established to provide education for the four million newly freed people of African descent who were denied the right to literacy and were excluded from educational institutions established for and by White people (Scott, 2000).
8. **PWI-** predominantly White institutions of higher learning that were initially established for the education of elite, White males (Solomon, 1985); institutions in which more than 50% of the student body are White students (Brown & Dancy, 2010). May also refer to institutions that are historically White, based on the exclusion and oppression of people of color from attending institutions of higher learning within the past century. Also refers to an institution where the majority of the upper level administration and faculty are White, even if there are a large number of students of color on that campus (Ugbah & Williams, 1988).

Summary

There is research that has shown the importance of Black women in higher education on the retention of students of color as well as the challenges and barriers that Black women continue to face in higher education (Kishimoto & Mwangi, 2009; Patitu & Hinton, 2003; Waring & Bordoloi, 2012). However, very few studies examine exactly who is providing the intervention and how that may influence the low numbers of student retention in STEM. This research study is at the intersection of these two findings- students of color need more effective support to remain in STEM majors at PWIs and Black women administrators could provide that support but encounter marginalization based on their intersecting identities. Using a Black feminist lens, I connected the two areas by examining the lived experiences of Black women administrators in STEM at predominantly White universities and providing some recommendations that could lead to institutional and systemic change.

CHAPTER 2

SELECTED LITERATURE REVIEW

> This research project, which examines the intersecting identities of Black women administrators in STEM, is personal to me because that is my current professional role and because I am attempting to complete my dissertation research while juggling my multiple responsibilities. In a way, this research topic may validate and confirm my own experiences. Yet, trying to complete a dissertation while also working full time, being a wife, mother, daughter, and graduate student feels the opposite of validating, but rather as a burden-although it is a means to a positive end. My personal experience may mirror that of the participants, full of ups and downs, positives and negatives but something that is necessary (Jackson-Truitt, Reflexive Journal Entry, 2015).

In chapter 1, I provided a brief historical overview of the role of Black women administrators in higher education, introduced the Black feminist framework that will guide this study, and discussed the state of STEM education in the United States. Specifically, I argued for research that elevates the "voices from the margin" the Black women administrators in STEM who provide some of the retention programming on predominantly White university campuses. In chapter 2, I will give an overview of some major themes I observed in the literature; Black feminist thought and its' application to research about Black women in higher education; the current status of Black women administrators in higher education, a rationale for Black women's presence on college campuses, as well as the unique barriers they face. Finally, I will discuss the

gaps in the current literature and how this phenomenological research study will address some of those gaps.

Black Feminist Thought in Academia

> Black female administrators in White academe are an endangered species. They are still tokens in higher education. Black women, when represented, are most often in positions peripheral to the policy and decision making core. They feel overworked, underpaid, alienated, isolated, uncertain, and powerless (Mosley, 1980, p.296).

As Black women were entering academia at the turn of the 20th century, early Black feminists like Maria Stewart, Ida B. Wells, Fannie Lou Hamer, and Zora Neale Hurston were speaking out against the double oppressions of race and gender they experienced (Collins, 1989; Glover, 2012). This outcry was one of the earliest forms of intersectional theory later enhanced by Black feminist thought scholars (Crenshaw, 1989). Speaking at the 1851 Women's convention in Akron, Ohio, Sojourner Truth addressed a congregation that included White women feminists who did not want her to speak about abolition and instead focus on women's suffrage. In perhaps her most famous speech, Truth declared, "that man over there says women need to be helped into carriages, lifted over ditches, and to have the best place everywhere. Nobody ever helps me into carriages, over mud puddles, or gives me any best place. And ain't I a woman?" (Truth, 1851). In order to understand how race, gender, and other intersecting identities impact the experience of Black women administrators at PWIs, I am employing Black feminist thought as the theoretical foundation of this study.

Black feminist scholars focus on empowering Black women to use their perspective to describe their own lived experiences, which often contrasts with the negative and stereotypical views of the dominant culture (Collins, 1986, 2000). Collins (1986) initially described Black

feminist thought as a theory that sought to understand the interlocking systems of oppression that included racism and sexism as they related to Black women. Historically, Black women were the objects of academic knowledge within research spaces. Collins wanted to legitimize their voices so they could become agents of academic knowledge instead (Collins, 1986, 1989).

hooks (1989) furthered this notion of legitimizing Black women's voices within research spaces. She described Black feminist thought as a way to "talk back" to the oppressive dominant culture of academia by "expressing our movement from object to subject" in order to be liberated from oppressive doctrine and experiences (hooks, 1989, p.9). In an updated discussion of Black feminist thought, Collins (1999) shifted her argument away from a focus on oppression to one of empowering Black women and emphasizing social justice issues. Since then, many scholars have defined and expanded Black feminist thought as a theory that is central to the experiences of Black women, particularly within academia (Evans, 2007; Grant, 2012; Jones, Hwang, & Bustamante, 2015; Shavers & Moore, 2014). As applied to this research proposal, I will use some of the major tenets of Black feminist thought to understand Black women administrators' shared experiences with racism, sexism, and other forms of oppression as well as hear their unique and common standpoint about their roles. Next, I will introduce the major tenets of Black feminist thought with a focus on Black women's *outsider within* status within academia and provide a rationale for applying Black feminist thought to educational research studies.

Definition of Outsider Within

One of the major themes of Black feminist thought is that of *outsider within* status based on being marginalized due to race, gender, class, and other identities (Collins, 1986). Collins (1986) originally defined outsider within status in response to Black women's intellectual contributions being excluded from mainstream, White academia and from other critical theory

discussions. Specifically, feminist research centered White women's perspectives while Black social and political studies centered the opinions of Black men (Collins, 2001). Within academic settings, Black women found themselves in spaces that were originally founded for and by White men (Solomon, 1985). Thus, Black women were outsiders within academia overall and were outsiders within gender or race focused research specifically. Although they were allowed "inside" the hallowed halls of academia, or invited to the table of race and gender based discussions, their voices were muted and they were still outsiders within that space (Collins, 1989; Truth, 1851).

Collins (1999) revisited the "outsider within" theme within Black feminist thought when she observed that it was being commodified-or that universities were treating Black women like a commodity that could be bought and sold. She found that institutions were seeking out Black women solely for their outsider within status to give the appearance of a commitment to diversity without actually being committed (Collins, 1999). By failing to give these Black women power to make decisions or devaluing their unique perspectives, they were further disenfranchised (Collins, 1999).

Other scholars have supported the notion that institutions were disenfranchising Black women in academia (Howard-Hamilton, 2003; Plaut, Fryberg & Martinez, 2011). Plaut, Fryberg, and Martinez (2011) developed a theoretical framework to understand the experiences of junior faculty of color, which contradicted the university's rhetoric regarding diversity initiatives. The authors found that the faculty of color was seen as strugglers and had to combat negative stereotypes, while the women of color felt that the reward structure did not consider their service or mentoring activities (Plaut, Fryberg, & Martinez, 2011). Howard-Hamilton (2003) found that due to the low numbers of Black women faculty at predominantly White

institutions, they felt an increased pressure to mentor students of color, serve on more campus committees, plus complete their regular duties of teaching, conducting research, and publishing at the same pace as their male colleagues-which lead to burnout. To counter this disenfranchisement of Black women, Collins (1999) called for institutions to eliminate outsider within spaces by including Black women who ask hard questions in new ways and to support Black women who occupy the spaces that their grandmothers and great grandmothers did not have access to**.**

Major Tenets of Black Feminist Thought

Throughout the data collection and analysis process, I applied the major tenets and themes of Black feminist thought to this study. Collins (1986) defined the four tenets of Black feminist thought as: (a) *content and themes that are tied to the historical and physical conditions of the lives of Black women that are produced by Black women*. In this study, I provided a historical overview of the lived experiences of Black women in academia and related those experiences to the current realities of Black women administrators in STEM. (b) *Black women have a unique standpoint of their experiences and shared group commonalities.* While each woman in this study has a unique and individual standpoint about her lived experience as a STEM administrator, I observed shared themes that all the women in this study expressed; (c) *these commonalities are shaped by other intersecting identities such as those based on class, religion, age, and sexual orientation.* Black women are at the center of two major identities that have historically been marginalized by the dominant culture- race and gender- and their experiences are further compounded by other identities, either positively or negatively. Black feminist scholars acknowledge and affirm the intersectionality of Black women; and (d) *Black women intellectuals must produce the theory and provide support for other Black women.* As a

researcher who is also a Black woman, I produced a study that contributes to the body of research regarding the current lived experiences of other Black women. During the entire data collection process and beyond, I provided a supportive space for Black women to share their stories without fear of reproach or denial.

In addition to these four tenets, Collins (1986) identified three major themes that are interwoven throughout Black feminist thought: (a) *self-valuation* and *self-definition*, (b) the interlocking nature of oppression, and (c) the importance of Black women's culture. The first theme is the importance of *self-definition*, in which Black women redefine themselves in contrast to the stereotypical images of Black womanhood that exist, and *self-valuation*, or the honoring of specific aspects of Black womanhood that have been historically marginalized by the mainstream culture (Collins, 1986). I addressed these two themes during the data collection and analysis process by asking the women to bring in photographs and images that best represent how they see themselves as Black women administrators in STEM with the goal being to allow them to redefine their own images and counter any negative stereotypes they may have experienced in PWI and STEM settings.

The second theme of Black feminist thought is the "*interlocking nature of oppression*" based on race, class, and gender, which led to the exclusion of Black women's viewpoints from race and gender based discourse as well as from the hallways of academia (Collins, 1986, p. S19). In a discussion of intersectionality, Collins (2000) expanded this viewpoint and highlighted "crisscrossing systems of oppression" that can be challenged by the collective standpoint of Black women (p.7). By asking the women in my study about their experiences as Black women administrators in STEM and how their race, gender and other identities impacts their ability to

perform their roles, I acknowledged multiple forms of oppression in their lives while centering their voices in the research data.

The third theme is the importance of Black women's culture that includes forming relationships with each other, or sisterhoods, that span back to slavery; forming relationships with our children as mediators between a racist dominant culture and the safety of a family structure that values Blackness; and Black women's artistic expression as writers, singers, poets and dancers (Collins, 1986). Collins (2000) later stated that one of the safest spaces for Black women is in relationships with other Black women. Within PWI settings, Black women have a history of developing sisterhoods and supportive networks to survive and thrive (Grant & Simmons, 2008; Grant, 2012). Through the data collection process, I connected with these women professionally and will maintain relationships even after the research study has concluded in order to develop an informal network that will sustain me throughout my own career journey and hopefully, serve as a source of support for the study participants.

Rationale for Black Feminist Theory in Academia

Black feminist thought has been applied to numerous research studies and literature about the experiences of Black women in higher education (Evans, 2007; Grant, 2012; Jones, Hwang, & Bustamante, 2015; Shavers & Moore, 2014). For example, Black feminist scholars, such as, Howard-Hamilton (2003), believe that research focused on Black women needs a theory like Black feminist thought, that considers their cultural, personal, and social contexts that are different from those of White women and Black men who do not experience both racial and gender oppression. Jones, Wilder, and Osborne-Lampkin (2013) also provided a rationale for applying Black feminist theory to research about Black women in academia. The researchers developed a Black feminist, advising framework for Black women doctoral students that

included validation of their experiences and advocacy within the university environment on their behalves (Jones, Wilder, & Osborne-Lampkin, 2013). Henry (2010) also applied Black feminist thought to a qualitative study of three Black women administrators at a predominantly White institution and focused on their "standpoint" or shared group awareness of oppression due to their race, class or gender. She found that while all the women in the study did not have the exact same experiences, they had similar occupational and familial experiences that contributed to a shared group consciousness (Henry, 2010).

Additional scholars highlighted specific themes from Black feminist theory such as the "outsider within" status of Black women within the predominantly White, male controlled spaces of higher education (Henderson, Hunter, & Hildreth, 2010; Holmes, Land & Hinton-Hudson, 2007; Howard-Hamilton, 2003). For instance, Howard-Hamilton (2003) stated that as Black women in higher education are challenged with racism, sexism, and classism which results in an outsider within status, Black feminist thought considers their social and cultural context and thus, was more applicable to Black women than the student development, and student affairs theories that are traditionally applied educational research. In another qualitative study of Black women in upper level leadership positions on college campuses, one researcher noted that all of them had experienced the outsider within aspect of Black feminist thought, although most of them were highly ranked college presidents and provosts (Henderson, Hunter, & Hildreth, 2010). Researchers used Black feminist thought in a narrative based study of the experiences of Black women in higher education to understand their mentoring relationships while being outsiders within academia (Holmes, Land, & Hinton-Hudson, 2007). Domingue (2015) applied Black feminist thought to 12 Black women student leaders at PWIs and found that these women had outsider within experiences through micro aggressions from their White peers, faculty and

supervisors; felt pressured to meet racial and gender based expectations such as presenting and speaking a certain way in front of their White peers; and struggled to negotiate a White male controlled system that sought to silence their voices (Domingue, 2015).

In contrast to studies that highlighted the consequences of Black women's outsider within status in academia, some of the researchers showed how a marginalized position could work to their benefit (Alfred, 2001; Hinton, 2010; hooks, 1984). In the preface to *Feminist Theory: From Margin to Center*, hooks (1984) described her earliest memories of living in a segregated southern town as "living on the edge…and looking both from the outside in and from the inside out…we focused our attention on the center as well as on the margin" (p.xvi). Yet, from that position, she felt the possibility of not just oppression but of radical opposition and resistance and later applied this unique position to the experience of Black women academics (hooks, 1984). Collins (1999, 2000) redefined the oppressive stance of an outsider within status to be a space from where social justice change could occur via resistance from the inside. These two scholars supported the idea of using an outsider within space to resist marginalization.

In congruence with hooks' (1984) and Collins' (1999, 2000) earlier work, Hinton (2010) applied Black feminist thought to the experience of Black women academicians at a predominantly White institution and found that Black women can use their outsider status as a position of power by recognizing the strengths and weaknesses of those at the center and by creating a community on the margins (Hinton, 2010). Based on the history of Black women being marginalized and disenfranchised within academia (Collins, 1986), the ongoing challenges that Black women face in PWI settings (Ong, Wright, Espinosa & Orfield, 2011), and the current White, male centric atmosphere of most STEM departments (Harley, 2008), Black feminist thought will be applied to this study. In this regard, I identified the shared standpoint that Black

women administrators in STEM experience due to their race and gender; how these women disrupted the negative discourse about them in the predominantly White, male academic setting; and how their identities impacted their ability to provide recruitment and retention programming to students of color in STEM. In doing so, the Black women viewed their roles as more than program administrators, but also as a way to engage in social justice advocacy. Specifically, as outsiders looking within predominantly White male controlled academic spaces, Black women administrators in this study were able to "talk back" to or challenge the dominant discourse about themselves and about students of color in STEM.

Black Women in Higher Education

Investigative inquiry about the specific experiences of Black women STEM administrators at PWIs is virtually nonexistent. Therefore, I examined research related to Black women administrators in other academic departments and Black women students to get a holistic understanding of the experiences of Black women in higher education. Two of the major Black feminist tenets are understanding the history of Black women's lived experiences and while unique individual standpoints do exist, acknowledging that all Black women have shared group commonalities and core themes that guide their lives (Collins, 1986). Therefore, including historical research studies and those that discuss Black women in other higher educational settings is necessary to this study. During my literature review, I identified three major themes in the research regarding Black women in higher education: (a) the current status of Black women administrators, (b) a rationale for the presence of Black women administrators on college campuses and (b) the challenges that Black women experience on predominantly White campuses.

Current Status of Black Women Administrators

Several decades after Black women were permitted to enter predominantly White institutions as students and employees, they have ascended from early roles as teachers into some of the highest positions but there is still a long way to go to reach parity with their White and male peers. While today, there are several Black women in collegiate leadership positions at PWIs, most spaces that Black women occupy are non-tenured faculty positions or lower level administrative roles that have less employment protection, do not possess much decision making power, and lack control over financial resources within the higher educational landscape (Lloyd-Jones, 2011). Yet, researchers show that the more people of color who exist in upper level administrative positions, the more committed to diversity that institution seems to be (Jackson, 2004; Villalpondo, 2002), which bodes well for institutions and student outcomes.

Despite demographic shifts in the population of the United States over the past three decades, Black women administrators in academia have experienced a zero net gain, that is, they are in the same numerical position as they were thirty years ago (Harley, 2008; NCES, 2015). These low numbers pose challenges for the experiences that Black women have on college campuses, particularly at PWIs. However, positions in academia continue to remain attractive to Black women because it is a role that is revered, provides economic stability and can serve as a bridge for other students of color and women to enter a prestigious space (Howard-Baptiste & Harris, 2014; Miles, 2012, electronic dissertation).

While the overall numbers of Black women working in higher education have increased over the last century, their existence within administrative positions is still very low in relation to their White peers, particularly at predominantly White institutions and within STEM departments. In 2011, of the 3.8 million professional staff positions available at all institutions,

White males held 1.2 million of those positions, White women held 1.4 million and Black women only held 234,000 or 6% (NCES, 2015). Since STEM program administrators could be employed in a host of educational settings that include multicultural/diversity offices, student affairs or within specific academic units (Glover, 2012), and most research about women of color in STEM is about the experiences of faculty or students (Malcom & Malcom, 2011), there is no comprehensive data about the total numbers of Black women who work in these roles. This research study hopes to contribute to that gap by highlighting their experiences in STEM retention roles on predominantly White campuses.

In addition to these low numbers of representation, Black women administrators continue to face challenges, related to their race and gender, as they maneuver through the academic environment (Gardner, Barrett, & Pearson, 2014). Kishimoto and Mwangi (2009) concluded that women of color in academia are marginalized and made invisible from the larger institutional context. Other researchers found that Black women faculty in STEM departments experienced racism and sexism, which influenced their retention or attrition (Charleston, Jackson, Gilbert, & Adserias, 2014). By describing the lived experiences of Black women administrators in STEM, provided ways that university leaders and federal funding agencies could better support these women.

Black Women Administrators and Student Retention

Another major theme in the research is the need for more Black women in administrative roles on college campuses. Researchers have shown that Black women are an integral part of the campus experience for all students and increase the recruitment and retention of students, faculty and staff of color (Gardiner, Enomoto, & Grogan, 2000; Hughes & Howard-Hamilton, 2003; Myers, 2002). For example, Jackson (2003) studied Black women in student affairs leadership

positions and found that they were integral to the satisfaction of both minority and White students. The author suggested that the campus administrators need to be as diverse as the student body (Jackson, 2003). This finding was supported by another qualitative study of Black women administrators at PWIs. Patitu and Hinton (2003) wrote a book chapter based on two earlier qualitative studies they performed about the concerns of Black women faculty and administrators on college campuses. They found that the 10 Black women interviewed for their study believed they were vital to the success of students of color based on the diversity of their experiences, worldviews, unique set of skills, and rich backgrounds (Patitu & Hinton, 2003).

Other researchers provided support for the presence of Black women administrators within STEM programs and in PWI settings. For example, Rice and Alfred (2014) used a life history approach to understand the career experiences of nine successful Black women engineers to determine what supports were most helpful for them during their educational and career journeys. The authors found that STEM support offices that were largely staffed by women of color were the most important resource on campus because it resembled a family unit, provided support and encouragement, and the staff members were the backbone of the programs (Rice & Alfred, 2014). This was especially salient for those who attended PWIs because they felt like the presence of a STEM support office showed institutional support for them (Rice & Alfred, 2014). Domingue (2015) provided further support for Black women administrators at PWIs by examining personal experiences with oppression and sources of nourishment at one predominantly White institution. In her qualitative study of 12 Black women undergraduate and graduates who were student leaders, she found that these students found support from women and people of color supportive networks and they needed the "othermothering" provided by

Black women educational leaders on campus in order to counter the marginalization they faced as Black women (Domingue, 2015).

These researchers supported the need for Black women administrators on college campuses, in PWI settings and within STEM retention programs. However, none of them discuss the unique experiences of Black women administrators in STEM to understand if they have experiences with race or gender based oppression that impacts their ability to perform their roles. Black feminist epistemology centers the lived experiences and unique standpoints of all Black women (Collins, 2000) yet; the voices of Black women administrators in STEM have been silenced in the existing literature.

Furthermore, none of the studies gather data from the women who are conducting the retention programming to understand their unique insights into how they are able to perform their roles in predominantly White environments but rather, gather data from students or faculty of color. This absence of data that highlights their unique standpoints contributes to the outsider within status that Black women in general and Black women STEM administrators in particular, experience within academia. By excluding the voices of Black women administrators in STEM from the current research, these women are doubly marginalized as outsiders within their professional spaces and within the current literature. Furthermore, Black women administrators have had limited opportunities to *self-define* and *self-value* their roles within STEM retention programs for students of color. By seeking out the voices from the margin- the Black women administrators in STEM-I contributed to a major gap in the current literature about Black women administrators within PWIs and STEM departments.

Challenges for Black Women

The second major theme in the literature regarding all Black women in higher education is related to the challenges they experience despite their successes recruiting and retaining students of color. Although there are several researchers who support the presence of Black women administrators at PWIs and within STEM retention programs (Jackson, 2003; Patitu & Hinton, 2003; Rice & Alfred, 2014), Black women continue to face challenges as they try to perform their roles on college campuses. The three major challenges for Black women in PWI and STEM departments include: (a) the double bind of race and gender, (b) feeling isolated within their settings, and (c) having limited opportunities for advancement (Espinosa, 2011; Malcom & Malcom, 2011; Ong, Wright, Espinosa, & Orfield, 2011).

The double bind of race and gender. In 1975, a group of scientists and engineers hosted a meeting to discuss the experience of women of color in science and engineering and produced one of the most commonly cited reports since, *The double bind: The price of being a minority woman in science* (Malcom, Hall, & Brown, 1976). The *double bind* refers to the dual oppressions that women of color experience based on both race and gender within STEM settings and that causes them to feel excluded, marginalized and isolated within their professions (Malcom, Hall, & Brown, 1976). This experience based on gender and race is supported by Black feminist researchers who would refer to this as the interlocking systems of oppression (Collins, 1986, 2000). More recently, Ong, Wright, Espinosa, and Orfield (2011) revisited this research report and conducted a meta-analysis of over 600 research artifacts about women of color in STEM. They found that although the numbers of women of color pursuing STEM degrees has increased since the initial report, they continued to experience oppression based on

their race and gender, felt isolated within STEM departments, and sought out mentoring relationships that affirmed their multiple identities (Ong, Wright, Espinosa & Orfield, 2011).

Other researchers have catalogued the ongoing oppressive experiences of women of color in STEM as it relates to these interlocking systems of oppression or the double bind (Malcom & Malcom, 2011). For example, Espinosa (2011) conducted a hierarchical generalized linear model of over 2,000 White and women of color in STEM at over 135 universities across the country. She found that Latinas majoring in STEM fields, particularly at selective institutions, felt marginalized based on their gender, racial and ethnic identities (Espinosa, 2011). In another analysis that supported these findings, Patitu and Hinton (2003) interviewed a total of 10 Black women faculty and administrators in higher educational settings and found that they continued to experience challenges related to their gender and race and were not able to separate one form of oppression from the other. Explicitly, some of the participants thought race was more salient than gender, while others believed it was compounded by their gender (Patitu & Hinton, 2003). In another meta-analysis of longitudinal research data, Johnson (2011) summarized dozens of research studies about the experiences of women of color in STEM and concluded that they were marginalized from their peers and the double bind of their race, gender, and other identities influenced how they navigated the culture of STEM spaces.

Isolation. The second major barrier that Black women in higher education face are feeling isolated within their settings. Collins (1989) stated that academia is a White male controlled, knowledge validation space that suppresses Black women academics. In support of her theory, scholars stated that the isolation experienced by Black women administrators, faculty, and students at PWIs can be attributed to the hostile environment, which negatively impacts their performance (Grant & Simmons, 2008; Jean-Marie & Brooks, 2011). Other causes of the

isolation of Black women at PWIs are the lack of a critical mass of women like them (Miller, 2003), being excluded from opportunities to provide their input (Kishimoto & Mwangi, 2009), or having limited access to resources that would better allow them to do their jobs (Lloyd-Jones, 2011). Correspondingly, West (2015) conducted a qualitative study of 10 Black women student affairs professionals at a PWI, and a major theme the women described was feeling under represented numerically and psychologically, which contributed to them feeling isolated in their professional settings. Similarly, in a qualitative analysis of 50 research studies about women of color in academia, researchers found that feeling isolated negatively impacted their retention (Ortega-Liston & Rodriguez Soto, 2014). Henry (2010) interviewed three Black women administrators at a large PWI to identify ways they achieved career success. She identified the negative challenges in their work settings as including race and gender based discrimination, confronting stereotypes about their appearance or ability, and a lack of understanding Black women's worldview (Henry, 2010).

Limited opportunities for advancement. The third challenge that Black women in higher education face is a limited opportunity for advancement. Specifically, Black women administrators are often found within student affairs or multicultural/diversity offices and in these roles do not have the same opportunities for career advancement as administrators in the Provost, Dean of Students or President's offices (Glover, 2012). Consistent with this study, Gardner, Barrett, and Pearson (2014) conducted a qualitative study of 14 Black administrators at predominantly White institutions to understand the enablers of and barriers to their career success. The authors identified the barriers to success for this group included lack of a clearly defined career path, fewer opportunities for career advancement, and lower compensation than their male and White peers (Gardner, Barrett, & Pearson, 2014).

If Black women administrators are employed in positions that do not have decision-making or policy influencing power, their opportunities for career advancement are also limited (Lloyd-Jones, 2011). Glover (2012) wrote a book chapter about the history of Black women administrators in higher education and found that they were less likely to be hired for mid and upper level administrative roles and thus, could not effect institutional or social change. In another book chapter based on data from two previous research studies, Patitu and Hinton (2003) interviewed a total of 10 Black women administrators who stated they lacked the appropriate resources or power to make decisions and their funding was often denied for programs that would increase diversity within the student population. As a result, these women had internalized feelings of being ineffective in their roles (Patitu & Hinton, 2003).

Another way to limit Black women's opportunities for advancement in higher education is to silence their voices. Collins (1989) stated that academia suppresses Black women who try to express their unique standpoint and therefore, suppresses Black feminist thinking. All of these researchers validate my personal experiences as a Black woman administrator in STEM at a PWI. Although I was initially hired to provide recruiting and retention programming to students of color, I was often not given the power, resources, or support to do so adequately. Despite these barriers, I managed to have strong success with programming but still dealt with low morale, questioned the value of my own perspective and insights, and had feelings of inefficacy. During this proposed study, I realized that other Black women administrators in STEM did have similar experiences, and shared standpoints as they provide retention programs for students of color.

The critique of this literature about the challenges that Black women experience in higher education is similar to the critique regarding the rationale for Black women at PWIs-the literature

is focused on faculty and students mostly. While there are shared experiences regarding isolation, the double bind of race and gender, and limited opportunities for advancement, there are some unique experiences that Black women administrators have that are different from faculty and students. A major tenet of Black feminist thought is understanding that Black women have a unique standpoint and shared common experiences (Collins, 1989). However, the unique standpoint and common experiences for Black women administrators in STEM has been largely overlooked by current researchers and I highlighted their experiences with this study.

In some cases, Black women administrators may be more vulnerable to reprimand from university officials if they speak out too much against the dominant discourse, in a White male controlled knowledge validation environment (Collins, 1989) and I used this research study as a way for them to "talk back" safely. Further, my goal was to employ other major tenets and themes of Black feminist thought by acknowledging the intersecting systems of oppression that Black women administrators experience in PWI, STEM settings and allowing them to define and value themselves in their roles as a way to challenge the dominant discourse. Finally, my research study examined if Black women STEM administrators also experience the themes of the double bind, isolation, and limited opportunities for advancement within a PWI setting and STEM department and how those experiences influence their program implementation with students of color.

Gaps in the Current Literature

Thirty-five years ago, researchers became increasingly interested in the plight of Black women administrators in predominantly White institutions and how their unique standpoints were being ignored (Mosley, 1980). One of the earliest groundbreaking studies concluded that White academia needed to look at how its' policies and infrastructure negatively impacted Black

women administrators, governmental agencies should pay closer attention to the status of Black women administrators, and research organizations should spend money on programs aimed at people of color but must also highlight the specific and unique experiences of Black women (Mosley, 1980). Williams (1989) supported the need for Black women's experiences to be separated from those of Black men and other women of color as suggested by Mosley's (1980) earlier study. Specifically, she found that the scant research about Black women administrators in general is due to the "double burdens" of race and gender (Williams, 1989, p.100), but these women are necessary in key administrative roles.

The dearth of research about the shared experiences of Black women administrators then and now, supports Collins's (1986, 1989) suggestion that Black feminist theory needs to be developed by Black women intellectuals. As a Black woman administrator in STEM, I have developed this research study in response to that call, in order to understand the unique experiences of other Black women administrators in STEM. Centering the often overlooked voices from the margin-those of Black women administrators in STEM-I contributed to the gaps in the body of research about this population that include the need for more research about the experiences of Black women administrators in general and in STEM programming specifically.

The first gap is the ongoing need for more research about the experiences of Black women administrators at predominantly White institutions. More than two decades after those initial studies that called for more research about Black women administrators at PWIs, not much has changed. Henry (2010) studied Black women administrators and found that the research about this group remains "virtually nonexistent." She called for future research to examine Black women within specific programs or interventions on campus to highlight their successes and their value to the institution (Henry, 2010). Other researchers suggested the need for

additional research into the experiences of Black women administrators at PWIs (Howard-Baptiste & Harris, 2014; Patitu & Hinton, 2003) and as it relates to the impact of relationships between students, administrators and faculty of color in STEM fields due to their high rates of attrition (Holmes, Land, & Hinton-Hudson, 2007).

The second gap that this study aims to address is the scant research about the specific experiences of Black women in administrative roles in STEM settings (Patitu & Hinton, 2003). Much of the current research regarding Black women in higher education is either focused on faculty at PWIs (Harley, 2008; Hughes & Howard-Hamilton, 2003; Jackson, 2003; Kishimoto & Mwangi, 2009) or on Black women students at PWIs (Domingue, 2015; Palmer, Maramba, & Dancy, 2011). Research that is STEM focused is usually about faculty and students of color (Chubin, Depass, & Blockus, 2009; Hurtado, Cabrera, Lin, Arellano, & Espinosa, 2009) but rarely Black women administrators. For example, Charleston, George, Jackson, Berhanu, and Amechi (2014) applied Black feminist thought to a case study of successful Black women computer scientists and found that race and gender were inextricably linked. However, the study authors cited the need for further examination into the institutional barriers that other Black women face in STEM departments (Charleston, George, Jackson, Berhanu, & Amechi, 2014). A major tenet of Black feminist thought is that Black women have a shared group experience based on the intersecting characteristics of race, gender, and other identities, yet, within this group, there are unique standpoints that must be considered (Collins, 1986). As such, it is my aim to highlight the unique standpoint of Black women administrators in STEM at PWIs.

Black women administrators in STEM are often successful in providing the culturally appropriate interventions that students of color need, yet continue to face challenges within predominantly White university settings. This research proposal is at the intersection of these

gaps-by examining the experiences of Black women STEM administrators or the voices from the margin- university leaders and federal funding agencies can gain more insight into the experiences of Black women administrators in STEM with multiple systems of oppression. Black women administrators are in a unique position, not only are they outsiders within a PWI and STEM setting, they are also excluded from spaces that other Black women faculty or students occupy. Black feminists call for the ability of all Black women to create a *self-definition* and *self-valuation* that counters the dominant culture, use their outsider within status to resist oppression, and create their own epistemology (Collins, 1986, 2000). Therefore, Black women administrators in STEM are uniquely poised to create institutional change and counter the multiple systems of oppression within STEM and PWI spaces. This research study highlighted ways that institutions can support these women which may yield better educational outcomes for students of color.

Summary

Patitu and Hinton (2003) wrote, "There is a need for Black women administrators at PWIs to have a voice, not just a place in higher education administration. Their visibility and presence will only increase as policies and practices come to understand cultural and gender differences," (p. 84). This selected review of the literature highlights the need for universities to understand the experiences of Black women administrators in STEM at PWIs. There are barriers Black women at PWIs continue to face including "outsider within" status (Collins, 1999), isolation (Miller, 2003), and fewer opportunities for career advancement (Gardner, Barrett, & Pearson, 2014).

Despite, these barriers, Black women continue to be integral to campus communities and in the retention of students of color (Gardiner, Enomoto, & Grogan, 2000; Hughes & Howard-

Hamilton, 2003; Myers, 2002). If university leaders are truly invested in increasing the retention of students of color, then they must support the Black women who deliver STEM retention programming. Furthermore, there is the need for institutions to understand the challenges that Black women administrators face and develop the appropriate support systems for them, which may lead to better educational outcomes for the institution and for the future population of STEM professionals.

CHAPTER 3

METHODOLOGY

I completed my first interview this week and edited the interview protocol so that it better aligned with my research tradition, theoretical framework, and research question. Some of the questions on the protocol were not asked clearly so I added a question about other identities besides race and gender, asked them about their career and educational trajectory to their current role, added a question about their overall experiences based on their identities, locations, and roles, and provided some context about my overall research question. Editing the interview protocol aligns with doing a semi structured interview and I am glad that the first interviewee was someone I was familiar with. I was not prepared for her to tell me that she learned something about herself during the interview. It was like a therapeutic process for her. Initially she stated that she did not think about her race and gender often but by the end, she realized that she had dealt with quite a bit of oppression based on her identities that she was finally acknowledging and releasing. Is this the meaning of participant activist research or phenomenology? Can research really be used as a tool for empowerment? If so, it feels like this project is mutually beneficial and that was my aim all along. (Jackson-Truitt, Reflexive Journal Entry, 2015)

Rationale for Qualitative Research Methods

Qualitative inquiry, used in this study, begins with a set of assumptions and uses theoretical frameworks to guide the research design and data analysis process (Creswell, 2012). It is exploratory and flexible in nature, tries to understand how experiences are created and is

value laden (Hays & Singh, 2012). It is useful for the study of social phenomena that are so complex that they cannot be reduced to numerical variables, in this case the intersection of racism and sexism. It is concerned with process, context interpretation, and providing meaning via inductive reasoning (Yilmaz, 2013). This study explored how Black women experience intersecting oppressions based on their positions as administrators, locations within STEM departments on predominantly White campuses, and identities as Black women. In order to understand the how or what of the Black women administrators' experiences versus the why of their experiences, a qualitative research method is most appropriate. This chapter is a discussion of the qualitative methodology I used in this study including the data collection and analysis process, strategies of trustworthiness, and ethical considerations.

The benefits of qualitative research are that it is able to discover the real lived experiences of its' participants without putting any hypothesis based limits on them and will allow the researcher to prioritize the participants' realities over their own views (Yilmaz, 2013). Also, it is a unique way to understand the lived experiences of under studied populations. For instance, Black women administrators in STEM at PWIs are an understudied population; much of the existing work in this area are quantitative studies that are solely focused on STEM program outcomes (White, Altschuld, & Lee, 2008; Wilson, Holmes, Sylvain, Batiste, Johnson, & McGuire, 2012) or qualitative studies that are focused on the experiences of Black women faculty or students in STEM (Domingue, 2015; Johnson, 2015). This qualitative study examined the experiences of Black women administrators in STEM at PWIs and captured the essence of their lived experiences instead of reducing their stories down to numerical values.

However, employing a qualitative research methodology does have some limitations worth mentioning. First, there is the possibility for the researcher to misinterpret the participant

responses or interpret them in a way that will not yield programmatic changes within a university setting (Atieno, 2009). To combat any potential for misinterpretation, I used trustworthiness strategies like triangulating the data using interview and photos, peer debriefing and keeping an audit trail (discussed later) (Creswell & Miller, 2000; Lincoln & Guba, 1985; Patton, 2002). Second, my own biases and assumptions could influence the results (Johnson & Onwuegbuzie, 2004). In response, I wrote a researcher positionality statement and kept a reflexive journal throughout the data collection and analysis processes (Creswell & Miller, 2000; Moustakas, 1994).

With this qualitative study, my goal was to explore the phenomenon that seems to be a common experience with my peers and myself and not widely addressed in the existing research- the experience of Black women administrators in STEM at PWIs. Also, I wanted to empower other Black women administrators to share their stories, highlight any race or gender based conflicts they have experienced, and use this information to advocate for institutional change in how these women are supported. A qualitative investigation is the most appropriate and powerful way to do this type of research (Parker & Lynn, 2002).

Qualitative Research Design

The foundations of a qualitative research paradigm include the research tradition and research paradigm, which both influence the core philosophies of science. These are the guiding principles of any qualitative research study that I explained in further detail as it relates to this proposed study. Specifically, the research tradition is the foundation of the qualitative research design with correlating data collection and data analysis techniques. This study's research tradition, phenomenology, was within the experience and theory formulation cluster because I sought to understand the experiences of the Black women administrators in this study.

Phenomenology Research Tradition

Early philosophers created phenomenology in response to social injustice and set the stage for the application of phenomenology to educational and counseling settings by seeking to observe a phenomenon within its' natural setting (Husserl, 1970; Schutz, 1967). When phenomenology is applied to educational and counseling settings, it values the client's perspectives of their own experiences over the perspective of an outsider who is looking within (Moustakas, 1994). One of the goals of phenomenology is to understand the meaning and essence of a phenomenon within its's natural setting (Moustakas, 1994). While there are several schools of thought regarding phenomenological research-including transcendental, existential, and Hermeneutic-I employed the transcendental phenomenological framework to this study. Transcendental phenomenology aims to separate the researcher from participant experience through the process of *epoch*e-or setting aside assumptions and pre-judgments (Moustakas, 2001). Although I identified with the women in this study and have a lived experience that mirrors theirs in some ways, I tried to limit some of my own assumptions and beliefs to ensure that their voices were elevated over mine. However, I understand that the researcher is also the instrument so my unique lived experience and voice is seen throughout this study by providing reflexive journal entries. Black feminist thought supports the idea that theory about Black women be created by other Black women (Collins, 1990), therefore, I wanted to include my own voice while still highlighting the experiences of the women in this study. By using a transcendental phenomenological approach to this study, I wanted to uncover the phenomena of the life world of Black women administrators in STEM and give meaning to the women's lived experiences.

Black Feminist Theoretical Framework

The research paradigm, or theoretical framework, is a belief system that informs the five core philosophies of science, which are ontology, epistemology, axiology, rhetoric, and methodology (Ponterotto, 2013). Black feminist thought, the theoretical paradigm applied to this study, is at the intersection of critical theory, which focuses on race based oppression, and feminism, which elevates the impact of gender on any context. Yet, Black women's voices are often excluded from both discourses in which "race is usually gendered and gender is racialized" (Winkle-Wagner, 2009). This exclusion of the unique experiences and insights of Black women provides a rationale for the application of the Black feminist research paradigm to this study.

The goal of this study was to highlight the unique experiences of Black women administrators in STEM as they navigated majority White and male environments and how their race, gender and other identities influenced their professional roles. The specific tenets of Black feminist thought that were addressed during the data collection and analysis process were: how their intersecting identities influence their experiences within PWI and STEM department settings, how they were impacted by the interlocking systems of oppression that Black women encounter, and allowing them to describe their roles through self-definition and self-valuation (Collins, 1986, 2000; hooks, 1989). Specifically, these tenets were explored through the qualitative research processes of phenomenological interviewing that elevated and centered their voices (Moustakas, 1994) and the photo elicitation process that allowed them to control the messaging about their intersecting identities (Frith & Harcourt, 2007).

Statement of Purpose

The purpose of this phenomenological study was to understand the lived experiences of Black women administrators in STEM for students of color at PWIs. Specifically, I wanted to

understand how their race and gender has influenced their ability to fulfill their role in the retention of students of color in STEM.

Research Question

The central, broader research question was: How do Black women administrators in STEM at PWIs experience intersecting marginalization based on their positions (as administrators), their locations (within STEM and PWI spaces), and their identities (as Black women)?

Data Sources

Sampling

Qualitative researchers seek participants who can most appropriately answer the research question, are the most productive and relevant to the research study, and who fulfill a set of eligibility criteria-this is purposive sampling (Denzin & Lincoln, 1998; Marshall, 1996; Patton, 1990). Purposive sampling pairs well with the phenomenological research tradition because it allows the participants to collaborate with the researcher in the study as experts in their own experiences (Hays & Singh, 2012; Patton, 2002). Using purposive sampling, I identified participants who could provide the most detailed information about their experiences at PWIs. I used purposive, criterion sampling in this study. Criterion sampling refers to participants who meet a predetermined set of criteria (Patton, 2005). The demographic characteristics of the participants, Black women, and theoretical framework of this study, Black feminist thought, suggested that a criterion sample is appropriate here (Robinson, 2014). In addition to criterion sampling, I used snowball sampling. Snowball sampling means to ask initial participants for others who may meet the eligibility criteria and this method can also be used to strengthen the rigor of the study (Bertaux, 1981; Hays & Singh, 2012). One of my participants, provided a list

of other women in her professional contacts list who met the criteria for the study and may be interested in participating.

Specifically, I searched the websites of the top 25 universities with STEM departments and that were considered predominantly white institutions. Then, I visited the websites of the Colleges of Engineering and Science to determine if they provided diversity related programming for their students. After that, I found the contact information for the program administrators of those programs, if they appeared to be of African descent. Using some of the contacts from my snowball sample and the list I created from the criterion sample, I created a list of 35 potential participants and began sending recruitment emails to them.

I sought Black women administrators in STEM but their exact job titles and locations within university settings varied. Researchers have shown that Black women administrators are employed in roles or positions with the least influence at PWIs (Harley, 2008) so I was flexible with the exact job titles. For instance, some of the women held positions like Program Coordinator, Program Manager, Assistant Program Director, and Program Director. Also, since STEM retention programs for students of color can be housed in academic departments, student affairs departments, or multicultural/diversity offices, I sought participants who were conducting programs within any of these locations. For this study, I was most interested in participants who administer retention programs for students of color in STEM majors. The specific selection criteria for the participants in this study was:

1. Black or African American
2. Identify as a woman
3. Provide a STEM retention program or intervention for students of color
4. Be employed at a predominantly White institution

On the recruitment email, I provided the following operational definitions:

- Students of color are defined as Black/African American, Hispanic/Latino, American Indian or Alaska Native, and Pacific Islanders or Native Hawaiians (National Science Foundation, 2014).
- STEM program administration includes but is not limited to providing research experiences, mentoring, educational and career advising, counseling, and financial support for students in STEM majors.
- PWI refers to any institution in which more than 50% of the student body are White students and/or where the majority of the upper level administration and faculty are White.

Sample Size

The goal of qualitative researchers is to identify participants who can provide the most detailed information to answer the research question instead of focusing on a specific number of participants (Patton, 2005; Seidman, 2013). Researchers have varied in deciding the exact number of participants to use in a qualitative study, but for phenomenological studies specifically, an appropriate number is between eight and 12 participants (Creswell, 2012; Hays & Singh, 2012; Seidman, 2013). There are other qualitative studies on similar populations as the one proposed here, that have widely varied in the number of participants used. For example, Rice and Alfred (2014) interviewed nine participants in their qualitative study of the career experiences of Black women engineers. In another study, a researcher studied the experiences of Black women in student affairs departments at PWIs and interviewed three participants (Henry, 2010). Domingue (2015) examined the experiences of 12 Black women student leaders dealing with oppression at PWIs. Based on my desire to get thick, rich data yet receive some diverse

perspectives within a homogenous sample, and to reach saturation with the data analysis, or the point at which no new themes have emerged (Seidman, 2013), I interviewed 10 participants.

Data Collection

"At the root of in depth interviewing is an interest in understanding the lived experience of other people and the meaning they make of that experience" (Seidman, 2013, p.9).

Interviewing

Phenomenological interviews are the most common method of gathering qualitative research data (Seidman, 2013). I chose interviewing as the primary source of data collection because it allowed me to understand the lived experiences of Black women administrators in STEM and how they describe and define their own experiences (Seidman, 2013). In particular, I conducted semi-structured interviews with each of the participants in this study following these steps:

1. I sent a recruitment email to a pre-identified list of potential participants (Appendix B).
2. If they indicated that they wanted to participate in the study, I sent the demographic questionnaire (Appendix D), informed consent form (Appendix G), and photo elicitation instructions (Appendix E) via email and scheduled the interviews.
3. I conducted the phone interviews and discussed the photos they took using a separate photo elicitation protocol

Interview Protocol. The semi-structured interview protocol was a guide for beginning the interview but the participants guided the process from there (Creswell, 2014). This method of interviewing, also known as in depth interviewing, allowed the most participant voice to be heard during the data collection (Hays & Singh, 2012). Hays and Singh (2012) provided eight types of questions to be included on qualitative interview protocols, some of which I added to my

interview protocol. For example, I included background and demographic questions, and experience questions, as well those guided by the phenomenological research tradition that seeks to gather the essence and meaning of lived experiences as well as the Black feminist thought theoretical framework which aims to amplify experiences based on race and gender and situate them within the larger social context. For the entire interview protocol, refer to the Appendix H.

Secondary Data Source. In addition to the interview data, I used a secondary source of data collection as another way to understand the participants' voices (Creswell, 2012). Photo elicitation is a method of qualitative data collection researchers have used in several studies of women of color faculty, staff and students at PWIs (Gibson, 2014; Harris, 2013; Banks, 2008). It allows participants to reassert control over the messaging they may experience about themselves and empower them to represent themselves in the way they want to (Frith & Harcourt, 2007). This form of self-representation through photos is supported by the Black feminist thought tenet of self-definition and self-valuation (Collins, 1986). Harper (2002) provided a compelling case for the use of photo elicitation because it evokes more feeling, emotion and thoughts than verbal language alone; can enhance the validity and reliability of a study; and allows two people to collaborate on interpreting meaning of a phenomenon-one of the hallmarks of phenomenological data collection and analysis. Thus, photo elicitation is a logical component of a phenomenological study with a Black feminist paradigm.

Before I conducted the interview, I asked the participants to send one or two photos that represented their experiences as Black women administrators in STEM at PWIs. I encouraged them to find or take images that represented all parts of their identities and allowed them the freedom to determine exactly which identity they choose to focus on. While conducting the interview, I asked the women to explain what the photos mean, which aspect of their identity it

represented, and how they would title their images or overall experiences. Collecting this secondary data source allowed me to get a deeper understanding of their lived experiences, confirm or deny any themes from the interviews, and was a way to triangulate my data collection methods which contributed to trustworthiness (Lincoln & Guba, 1985).

Researchers Role

In qualitative inquiry, the researcher is the primary data collection instrument, makes all of the observations and analyzes the data. Therefore, I identified my personal biases, assumptions, and values at the beginning of the study (Creswell, 2012). I did this by completing a reflexive journal throughout the entire data collection and analysis process and including a researcher positionality statement in this chapter. In keeping with the Black feminist tenet of self-valuation, self-definition, and using research as a way to empower Black women (Collins, 1986) I have decided to value my own lived experience and include it in the data analysis process. Thus, I have included a few entries from the reflexive journal throughout this study so that my unique voice and lived experience helps inform the data analysis process.

Reflexive Journaling. Researcher reflexivity is an ongoing, active self-examination throughout the entire research process (Morrow, 2005), that allows the researcher to separate their own biases and worldview interpretations from that of the participants (Hycner, 1985). Researchers address this through reflexive journaling. Watt (2007) kept a journal to detail her thoughts and reactions before, during and after a qualitative study on home schooling. She stated that this journal strengthened her conclusions and she became a better qualitative researcher as a result (Watt, 2007). I followed a similar model, especially since I have a similar identity and work setting as the study participants. I was especially thorough with the reflexive journal

during the data analysis process when I was bracketing my assumptions as another way to enhance the trustworthiness of the study. See a sample reflexive journal entry below:

> As I listened to and transcribed the interviews, I felt triggered by some of the negative experiences that the participants reported. It also validated many of the experiences I have had as an African American woman administrator in STEM at a PWI. Another key finding is that most of the participants are seeking a network of women in the same role, ways to connect with each other in the future, and are looking to me to provide some follow up to the research study. That places a burden on me as a researcher to report their comments accurately and thoroughly and to do something with the research to make positive changes in the field.
>
> I have also been surprised that some women have been reluctant to name their actual experiences as racism, sexism or some other form of oppression. After they describe an experience that sounds like racism or sexism, they quickly say something that counters it or explains it away. I noticed some incongruent statements where a participant would say that her department is very supportive and that she had not experienced oppression but then describe how they are struggling in their role with isolation and lack of resources. These sentiments are the total opposite of my worldview regarding my race and gender identity. This makes me wonder if my questions were not posed clearly, if I should have probed further (without alienating them) or if I needed to provide operational definitions of racism, sexism and other forms of oppression. In hindsight, I am glad that I transcribed the interviews myself because I picked up on some themes and concepts that I would have missed otherwise. I feel so much closer to the data and to my participants too. (Jackson-Truitt, Reflexive Journal Entry, 2015)

Data Analysis

Moustakas (1994) has a structured set of guidelines as part of the transcendental phenomenology data analysis process that I applied to this study. At the outset of data analysis, I created a binder with a tab for each participant that included all collected data: the consent form, demographic questionnaire, recorded interviews, and photo elicitations that was kept in a locked file cabinet in my home office behind a locked door. First, I **transcribed** all interview data, which involved writing down the literal statements as well as every conversational pause and non-verbal cue, while leaving a margin on the right hand side of the paper to insert initial, general meanings (Hycner, 1985). These non-verbal cues included laughter, crying, and any other emotional gestures; as well as being very careful about where to add punctuation (Seidman, 2013). There were times when I felt so traumatized by what I was hearing that I needed to set aside the data, or take a break for a few days before continuing with the transcription process which aligns with the steps for heuristic inquiry (Moustakas, 1994). Refer to Appendix K for a sample transcript of Tina, one of the study participants.

Next, I **bracketed my assumptions or conducted the process of epoche,** during which I suspended my personal beliefs or reactions to the data and allowed the individual participant meanings to emerge (Moustakas, 1994). Further, bracketing my assumptions through the process of reflexive journaling enhanced the trustworthiness of the study (Watt, 2007). However, as the researcher and instrument and as a Black woman administrator in STEM, I recognize that I have a lived experience that mirrors that of the women in this study and that needed to be included throughout the data analysis process. Therefore, I have included reflexive journal entries in each chapter in order to connect my lived experience with that of the women in the study.

Then, I conducted the process of **horizontalization**, which means to create larger categories of codes, then reducing them down into smaller and smaller categories or "delineating units of general meaning" until there were no overlapping themes (Hycner, 1895, p. 282). I initially created a list of 17 a priori codes that were based on what I expected to find, my own lived experience, and what I was hearing during the transcription process. I added significant statements to each of these initial codes. I connected each of these initial codes to Black feminist tenets. Some of these initial codes included: the women seeing themselves as advocates; dealing with isolation and exclusion; having or needing mentoring; being reluctant to define racism, sexism or other forms of oppression; uniquely identifying with students of color or other Black women in similar roles; and recognizing several intersecting identities other than their race and gender. The complete list of these a priori codes are listed in Appendix J.

After this, I realized that there were additional significant statements that did not fit within those initial codes. Since qualitative research is not about testing a hypothesis, I needed to conduct analytic induction or "move from an exploratory process to a more confirmatory process" (Hays & Singh, p. 307, 2012). Thus, I expanded my research question to focus on identities other than their race and gender and added four additional codes which were: receiving and seeking respect; riding an emotional rollercoaster; having effective and ineffective supervision; and the ways that these women were unique from Black women faculty in STEM. I **eliminated any repeating codes** and then **clustered the related codes** (Moustakas, 1994) into five categories of etic codes, using my own interpretations. Those etic codes were: identities; environments; reluctance and resistance; credibility and respect; and connection, networks, community. Then, I reduced these codes down again into the final four categories of emic codes, using their own words, which are presented in chapter four (Moustakas, 1994). The final step in

the data analysis process was to compile a **composite summary** that included the meanings and essences of the experience of each Black woman administrator in STEM that I interviewed for this study (Moustakas, 1994). This composite summary is shown via the narratives at the beginning of chapter four and the meta-case at the end of chapter four.

Strategies of Trustworthiness

Numerous ways to check the rigor of a qualitative research inquiry include tests of credibility, transferability, generalizability, validity and reliability. Lincoln and Guba (1985) referred to these as strategies of trustworthiness. Since qualitative methodology does not seek to identify a concrete, absolute truth but rather, seeks the subjective realities of its' participants, researchers do not need the same level of validity measures that quantitative studies require (Angen, 2000). Therefore, I used several trustworthiness strategies to ensure there is validity and reliability in this study without compromising the integrity of the qualitative research design-thick, rich descriptions; triangulating the data; and peer debriefing. Validity means to ensure that the research findings are accurate to the participants and to the researcher (Creswell & Miller, 2000). Reliability means to ensure that the approach to research is consistent and can be duplicated across researchers and disciplines (Creswell, 2012).

By providing a thick, rich description of the data, I allowed the readers to fully understand the experience of the participants (Creswell, 2014). Further, I described the context, settings, and feelings that inform the data plus the meaning or interpretation that I make of it (Hays & Singh, 2012). Next, I triangulated the data collection methods by combining two sources of data, the interviews and the photo elicitation, to create a full perspective for each participant (Creswell, 2014).

The final trustworthiness strategy I used was peer debriefing, or using colleagues who work in a similar setting but who are not directly tied to the research topic or to myself (Patton, 2002). The peers I identified are a Black male, who is a tenured faculty member in a STEM department at a PWI, a Black woman who is an administrator at a PWI, and a White woman who is an educational researcher in STEM at a PWI. I used peer debriefing in lieu of a research team because I already have insider knowledge of the setting, context, and phenomena being studied due to my practitioner role. I asked the peer debriefing team for feedback throughout the data collection and analysis process to help reduce my own bias. Researchers have stated that peer debriefing in lieu of a research team does not compromise the veracity of the study (Hays & Singh, 2012) and is another appropriate way to ensure validity and reliability (Lincoln & Guba, 1985). Along with the trustworthiness strategies detailed here, I kept an audit trail to document every attempt to collect data, the interview protocol, timeline of research, reflexive journal, codebook, contact sheet, and all transcriptions (Lincoln & Guba, 1985).

Ethical Considerations

The National Committee for the Protection of Human Subjects of Biomedical and Behavioral Research was established in 1979 to address the exploitation of human subjects during the research process. This commission created the Belmont Report that outlined how researchers should treat human subjects including *respect for people*, *beneficence*, and *justice* and for the creation of institutional review boards (IRB) to govern the treatment of human subjects in any research study (The Belmont Report, 1979).

The University of Georgia IRB ensures that all human subject research meets federal, state and institutional guidelines. After obtaining IRB approval, I provided an informed consent form (Appendix G) that included an invitation to participate, details about what is expected from

each participant, any potential risks, participant rights, possible benefits, confidentiality of records, disseminating data, and my contact information (Seidman, 2013). Next, I submitted the informed consent, interview protocol, and methodology to the UGA IRB for their approval before beginning the data collection process. The informed consent form and IRB approval are two ways I was compliant with the tenets of the Belmont Report.

Researcher Positionality Statement

As the study author, I acknowledge that I bring a very specific worldview and host of assumptions to this research. These beliefs and experiences shape the way I have framed the research questions but should be addressed so that I do not overshadow the voices of the participants with my own voice. First, I recognize my dual role as a researcher and practitioner because I am studying a space and participants with whom I share many characteristics. In my current role as a STEM administrator at a PWI, I share many similarities with the study participants. However, there are benefits to being in such a position. Stricker (2002) identified the four tenets of being a researcher practitioner as enhancing the researcher's practice by incorporating salient and current research, leading to ongoing self-evaluation, and generating new research in the field. Arber (2006) acknowledged the identity crisis she experienced in a dual role as a researcher practitioner in a medical setting and focused on reflexive journaling to manage the dual roles and create boundaries between herself and the participants. To address my own dual roles, I maintained the reflexive journal throughout the process of this research study.

The second theme to address is my worldview regarding racism, sexism and other oppressions. Based on my childhood experiences of growing up in close proximity of a historically Black college where my entire family worked and graduated from, then attending three predominantly White institutions, I have a unique history of being ensconced in settings

that celebrated my Black identity and buttressed me against the oppressions I would later experience in majority White settings. In middle and high school, I read novels by Toni Morrison, Harriet Jacobs, and Alice Walker, that discussed this country's early history of slavery, violence against Black people, the Jim Crow era and the civil rights movement

This early awareness of the intersection of race, class and gender guided my later studies and career interests. As an undergraduate student, I chose a double minor in Black and women's studies because I was so interested in learning how to manage the two identities that were most salient for me. Even then, I realized that both frameworks excluded aspects of my own identity, the Black studies courses focused on the contributions of Black men activists and the women's studies courses focused on the leadership of White women and had to supplement this gap by reading books by every Black women novelist and scholar I could find. In graduate school, I embraced the Black community and further solidified my identity as a social justice activist. Just before graduation, I organized a march in support of affirmative action on behalf of the University of Pennsylvania. We collaborated with many multicultural organizations on campus, obtained administrative support, and took 300 mostly White, Ivy League students to Washington, D.C. to march in solidarity with students from all over the country.

These early experiences led me to where I am now, pursuing a doctoral degree in counseling from the University of Georgia with an emphasis on social justice. A few years ago, I transitioned from a role providing clinical social work counseling to a position in academia and I experienced many challenges during my first year at this institution. I was hired by a STEM department to provide outreach and diversity initiatives for students of color. From the very beginning, I experienced a major culture shock-I was the only Black woman who was also a middle level administrator in my entire building and was one of only two Black women who

were staff persons on the multi-institution grant program. I was an outsider within the PWI setting generally and within the STEM department specifically (Collins, 1986). The other Black women I encountered worked in staff positions such as front desk administrative assistants or provided janitorial services. While these women silently cheered me on, some of my White colleagues met me with suspicion and resistance. During staff meetings, I felt like my voice and unique perspective was not valued. I did not receive the financial or staffing resources to carry out the diversity programs to their fullest potential. In planning sessions or on conference calls, my thoughts were challenged by those who had more experience in academia than me or who thought they knew more about assisting students of color than I did. I did not know if these challenges were due to my gender, race, age, or educational background but I did know that I felt marginalized by interlocking systems of oppression (Collins, 1986) which were negatively influencing my physical and emotional health.

Personally, my White, male colleagues questioned me about my marital status, my desire to spend time volunteering at my daughter's school, my choice of hairstyle, and my social life. In one conversation, my supervisor asked if I was married- despite having a hyphenated last name, a young child, and wearing a wedding ring. When I told him, "Yes," he wondered why my husband would allow me to be friends with another Black male colleague in our department. These hostile and isolating interactions caused me to question my own voice, skillset, and probably affected my ability to be effective in my role-feelings that other researchers support (Grant & Simmons, 2008; Jean-Marie & Brooks, 2011).

In my current role, I serve as a program administrator of STEM recruiting and retention programs for students of color at a PWI. In this role, I provide counseling, advising, and advocacy for mostly undergraduate students in two federal and corporate funded programs.

Today, I am in a work environment that respects my intersecting identities and that provides the necessary resources and support to be effective in my role. I believe that this level of support directly translates to being more effective in my ability to retain students of color. Over the past five years, I have seen dozens of Black and Hispanic/Latino students who participated in my programs graduate with STEM bachelor degrees, enter graduate school programs or accept corporate positions in STEM fields. Anecdotally, students have stated that if it were not for the support they received from my office, they would not remain at this institution. I now use my outsider within status to my students' advantage by empowering them with insider information, creating a community outside of the margins of supportive faculty and staff, and advocating within the margins for institutional changes that would better support them (hooks, 1984).

I bring all of these experiences and expectations to this research study. While, it is important that I am fully aware and able to acknowledge social injustice, I must expect that not all of my participants will be as willing. Some of the participants may not be able to identify their experiences with oppression, they may not have any experiences with racism or sexism, and they definitely may not share a similar worldview. However, it is very important that I highlight the voices of those who may counter or challenge my opinions so that I can be true to the essence of their lived experiences.

Summary

This chapter described my process of gathering and analyzing the data in this phenomenological research study. I began with a rationale for using qualitative inquiry within this particular study followed by the research questions. Next, I discussed the phenomenological research tradition, the Black feminist thought research paradigm, and how both will guide the core philosophies of the entire study. Then, I discussed my sampling techniques and the specific

selection criteria for this study. The data collection methods included a semi-structured interview process loosely based on Seidman's (2013) three-interview model. The secondary data collection source was photo elicitation to try to capture the essence of the experiences of Black women administrators in STEM at PWIs. Using Hycner's (1985) modified guidelines for phenomenological data analysis, I ranscribed and coded the data while using several strategies for trustworthiness to increase the validity and reliability of the findings. I addressed ethical considerations through the IRB approval process and informed consent. Reflexive journaling occurred before, during, and after the research process to bracket my assumptions and reduce bias.

CHAPTER 4

RESEARCH FINDINGS

> I am now coding interviews and for some reason this process feels a bit traumatic. I feel emotional pain when I hear the passion in their voices. I feel like I am going through my own experiences all over again while trying to remain strong and not lead the interview process. Also, I have a cold so I took a few days off after coding the first three interviews. Now that I am pairing statements with black feminist tenets and affirming the ways in which these women have been marginalized, I am feeling like it echoes my past professional experiences with marginalization which does not feel good (Jackson-Truitt, Reflexive Journal Entry, 2015).

The purpose of this study was to understand and highlight the experiences of Black women STEM administrators at predominantly White institutions. The research question is: how do Black women administrators in STEM at predominantly White institutions experience intersecting marginalization based on their positions (as administrators), their locations (within STEM departments on predominantly White campuses), and their identities? The major tenets of Black feminist thought (BFT) that are applied to this study are the outsider within status of Black women in academia, the opportunity for Black women to provide a self-definition and self-valuation of their roles, and the interlocking systems of oppression that Black women experience based on their intersecting identities. By centering the individual experiences of each participant,

while highlighting their collective experience, this study aligns with the goals of Black feminist theory as a way to counter the negative images of Black women.

Using a phenomenological approach, I aimed to highlight the meaning and essence of Black women's experiences as STEM administrators at PWIs. In addition to race and gender, we discussed their other intersecting identities (such as class, religion, and socioeconomic status), and how their professional and personal lives are impacted by those identities. Across the country, the numbers of Black women administrators in STEM at predominantly White institutions are low. In order to protect the privacy of each participant and minimize the chance that she will be professionally penalized for her honest responses, I will be using pseudonyms and providing vague descriptions of their educational and professional backgrounds. In this chapter, I will describe the findings from my data collection and analysis process, beginning with a narrative introduction of each participant, a description of the four most salient themes and subthemes, and supporting quotations and images for each theme. I will exclude any images with identifying or personal information. Instead, I will explain the image and how it relates to their quotes or themes. The four major themes I will discuss are: (a) "This is part of who I am as a person," (b) "It is just always a struggle," (c) "The value that I bring to the table," and (d) "A place where I can be myself."

Individual Narratives

Monique

Monique works as a STEM administrator for undergraduate students at a PWI. She has worked as a STEM administrator at several PWIs for almost ten years. Her educational background includes receiving STEM degrees from both predominantly White institutions and

historically Black colleges. Although she recognized that she is a Black woman and that other people would primarily identify her as such, she "did not think about her race or gender on a regular basis" as she performed her role and was reluctant to define her negative experiences as racism or sexism. For example, when she was discussing the preferential treatment that a White women or male colleague received, she stated:

> I can, you know claim racism about certain things all day long, okay 'they didn't speak to me or they didn't say this, or I wasn't called into this meeting' but it is my perception. Whether perceptions are an accurate snapshot of reality is something that we really may never know unless we actually probe and ask someone.

When asked to submit an image that described her overall experience as a Black woman administrator in STEM at a predominantly White institution, she provided the drawing below. In this image she described herself as "colorless and genderless" but someone who is able to help all students, regardless of their backgrounds.

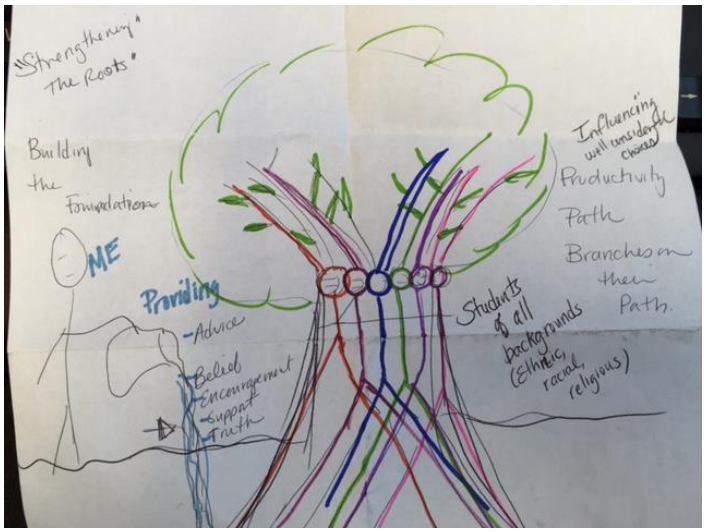

Figure 1. Monique's Image "Strengthening the Roots."

Nia

Nia has worked as a STEM administrator for students of color at a predominantly White institution for more than five years and has three degrees in a STEM major from a PWI. She understands how her identity as a Black woman can be negatively perceived and how that can cause resistance from others around her:

> I think that [for] majority populations... there is some sense that these people are taking opportunities that I may have had so there is some resistance on really making things diverse or being inclusive or changing the culture.

She provided two images that described her experience as a Black woman administrator in STEM at a predominantly White institution and titled them “The Rollercoaster of the Unknown.” In describing one of the images, she stated that you cannot tell exactly what racial background the people are from because “people are so dynamic and are influenced by so many things. So it represents the dynamics of a person and the complexity of working with people in this space.”

Figure 2. Nia's Image "The Rollercoaster of the Unknown."

Tina

Tina has been a STEM administrator for students of color at a PWI for almost five years. She has an educational background in social sciences and has worked in the educational field for more than a decade. In her role, she feels very marginalized due to her identity as a Black woman, but also as a young woman and as someone working in a STEM department without a STEM degree. Like some participants, she was unable to determine which aspect of her identity was causing her to feel marginalized, but she knew that her experiences were likely gender and race related, "I am often looked at because I am young or because I am Black as the help-someone less important-so that definitely presents a challenge when you are trying to work towards getting stuff done."

Tina was asked to discuss the two images that described her experiences as a Black woman administrator in STEM and titled them "Equality in Work." In the second image, she talked about how she tries to deal with the challenges she faces in her professional life and uses another aspect of her identity-her religious faith- to help her:

> This image represents after the dust settles. After I go through getting all this stuff done and getting everyone situated. The butterfly by itself means I am by myself, I am floating

around, and just kind of in this place, in this space. And it is peaceful…for the most part it is peaceful…this image represents my inner peace.

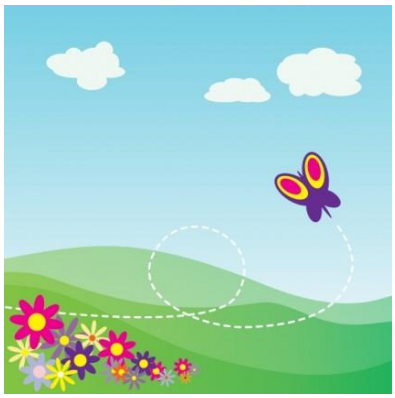

Figure 3. Tina's image "Equality in Work."

Elizabeth

Elizabeth has worked as a STEM administrator at a predominantly White institution for almost ten years. She has received three STEM degrees from a historically Black college or university. While attending her undergraduate institution, she had early experiences being the only Black woman in her major at research labs during the summer. In her current role, she struggled with how her identity as a Black woman administrator impacted how she is perceived. Thus, she is focused on ensuring that she provides a positive representation of a Black woman in STEM.

When you are the only one in your race in your department or a whole college or a whole STEM field, everyone pays attention. They watch you, and they lump us all together so they have thoughts about who you are and what we are all about so whatever that is-you can change some mindsets by what you do.

She provided two images that described her experience in her current role which she titled, “Impacting the Next Generation for a Better Tomorrow.” In one of the images, she is speaking in front of a classroom to a group of students. She often referred to her own educational experiences and her non-traditional career path as she mentors them. Elizabeth stated:

> The picture says ‘Plan it, own it, work it.’ We don’t have a lot of positions out here and students should think about who they want to be early on. I thought I would be some [STEM professional] in a research lab somewhere but whether I become that or not, I have all of the skills and they are transferable…I honed my craft.

Alyssa

Alyssa has worked in the STEM field as both a STEM professional and now as a STEM administrator for over 15 years. She received STEM degrees from both predominantly White institutions and from a historically Black university. Due to her educational background and unique career trajectory, Alyssa has been successful in her role while interacting with faculty and upper level administrators due to her in depth knowledge of STEM and prior professional experiences. She stated:

> I share a similar background with the students as well as with the faculty so they really do accept me differently based on when I talk to other colleagues who are not faculty trying to do this same type of work…I think they trust what I say because I am Black and I have an advanced degree in STEM areas-they trust what I say when I say these things are important for our students and they really listen.

Positive Chica

Positive Chica identifies as a woman of both Black and Latina descent. She has over ten years of experience working in various administrative roles at a predominantly White institution and now works as a STEM administrator for students of color. Her primary identity is her race and ethnicity which she has to juggle with her other primary identity as a woman. However, in her interactions with White women, she struggles to help them understand why both are so important to her.

> I consider myself Black but my mother is Columbian so I fall up under Hispanic/Latina. I check those boxes when appropriate and I represent both heritages proudly but when I walk in a room I am a Black woman…I don't know if this is a unique challenge but probably any woman of color but sometimes you have to choose between the female or women's agenda and the color agenda because they don't always match up.

Joy

Joy has worked as a STEM administrator for students of color for over 15 years. Her educational background includes STEM and social science degrees from predominantly White institutions and a historically Black university. Her primary identity as a Black woman allows her to connect with students, faculty and other administrators from diverse racial and ethnic backgrounds. Due to her lengthy experiences as a STEM administrator, she no longer experienced the same type of marginalization that newer STEM administrators experienced in this study, but she continued to feel isolated as one of the few Black women in her role:

> The second picture is the water bottle, something that is strong but flexible and also you see in that picture, it is the only water bottle in that picture. So you know, being the only

one in a crowd, at the same time I have to know how to be strong but be flexible to be successful in my role.

Figure 4. Joy's Image "Strong but Flexible."

Sunshine

Sunshine has worked as a STEM administrator for students of color and as a STEM professional for over 15 years. Due to her unique experiences as both a STEM professional and now as an administrator, she did not experience the same types of issues related to respect and credibility as some other participants reported but she was very clear about feeling isolated in her role, the way her Black identity is directly connected to her role, and why she must be an advocate for her students.

> The word huge comes to mind. It hugely influences my role in both positive and negative ways. A negative way is [when people think], 'she is Black of course she is gonna say those things'...I have had students and parents say they chose this PWI because they felt their child would have an advocate. We have had our issues with diversity but the fact that they trust their children to come here is huge.

Due to her lengthy experience as a STEM administrator, Sunshine provided some insight into her career journey that could be useful to some of the newer administrators. Although she could have pursued a more academic role and has had some marginalizing experiences based on her race, gender and other identities, she does not regret her decision to pursue an administrative role in higher education. When she was asked to describe one of the images she provided she stated:

> When I look at it, I'm not sure it's a sunset, okay? I remember thinking, is the sun going up or down? Beaches renew me and I made the decision to [pursue an administrative diversity role] while sitting on a beach…basically I didn't do what you are supposed to do with my credentials. This was basically saying I didn't like the [previous] job and I wasn't very good at it...I couldn't make myself do it. This picture reminds me that it ended up okay and it was the best thing to do.

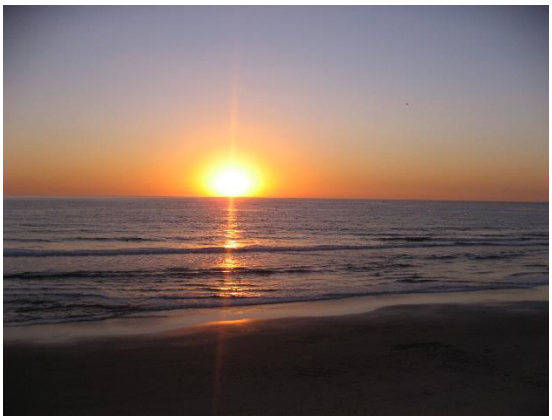

Figure 5. Sunshine's Image "Perseverance."

Marion

Marion has been a STEM administrator at a predominantly White institution for more than five years. She received two STEM degrees from a predominantly White institution and her

experience as being one of a very few Black women in STEM as a student allows her to directly connect to the students she provides programming and support for. She stated:

> Going back to my personal experience as an under represented student not only in undergrad but also in grad school, having that personal knowledge of what it feels like to be the one of few or the only one in your subject area-in courses, attending conferences. That lack of confidence, the pressure that you might feel to perform at a certain level or higher level than your classmates. The obstacles you may come across or the perceptions you may have to negate while going along in your program. Those things have definitely helped me to bring that perspective to what I do.

Marion also talked about the nuances of being a Black woman working in a STEM diversity program for other marginalized populations:

> The primary thing that sticks out the most in working in the area of trying to increase diversity while also still being a minority, it's kind of a weird place to be. It's a very weird place to be…while you are trying to effect change for others, you look and think there are some changes we need at this level too. It's really, it's a paradox, you know? As I try to create support networks for students and faculty I also wonder where that support network is for me? I can't think about it too hard, but when you step back and think about it. I'm like hmmm…

Ella

Ella has been a STEM administrator for more than a year. Prior to pursuing this role, she received several STEM degrees from a predominantly White institution and then worked as a STEM professional for a few years. She realized that she was the only Black woman in her entire company and became disenfranchised with the entire profession. She wanted to use her

experience to make changes to the pool of qualified STEM professionals who are also people of color which led her to pursue her current role in academia.

> I was working at a technology company and out of 300 STEM professionals; two were Black women one of whom was not from the U.S. So I was very disenchanted with my company and now that I think about it, I had a really good Asian woman friend who was also the only Asian woman, but we were both the 'lonely onlies' and I thought there must be something I could do.

Theme 1: "This is a part of who I am as a person."

"I am an engineer. That is another important part of my identity and I have to tell people that now because I don't work in that space anymore so I have to say it, [which is why] that picture is so diverse. It shows all the different areas of diversity in engineering, you see how each letter looks different? It takes on all types of engineering fields. It also speaks to the fact that the people in engineering must be diverse to make a world of difference. That really speaks to me." Alyssa

Figure 6. Alyssa's Image "Diversity in Engineering."

Black feminists acknowledge that Black women are impacted by a culture of White supremacy in the United States which results in oppression-such as racism, sexism, and classism-

based on their multiple identities (Collins, 2001). One of the overarching tenets of Black feminism is that Black women have unique, individual standpoints but a shared group commonality that is shaped by their experiences based on their race, class, gender, socio economic status, religion, sexual preference, and other identities (Collins, 1986). During the interviews, the women were asked how their race and gender influenced their role as STEM administrators. Their responses such as "this is part of who I am as a person," illuminated the Black feminist tenet about intersecting identities. The responses also revealed the first theme of this study which is how they manage these multiple identities in their professional role. At the same time, there was some variance in how the women described and defined their multiple identities as it impacted them professionally.

Each of the participants in this study identified several intersecting identities, in addition to their race and gender, that impacted their personal and professional lives, such as their status as mothers and wives, their spirituality, or their socio economic status. While discussing how they manage these identities, I observed two sub themes which are the realization that their racial identity is "more salient than their gender" and their "mother hen" identity was very prominent in their professional and personal lives. When discussing their identities, six of the women described how they impacted their personal and professional experiences. For example, Marion described the difficulties she experienced while balancing her identities:

> It is really interesting because some of the challenges I feel are very similar to how I felt as a student being the only one, feeling the pressure to represent groups, not just one identity but lots of identities whether it be social identity or socio economic background, I am looked to as the expert and the person that is leading the conversation so that can be a lot of pressure.

While sharing some of the same identities that Marion listed, Nia specifically discussed how her social class still affects her professional life:

> I identify with race and ethnicity, woman, education, disability. I have a disability so I often think about that. Socio economic class…I grew up first in my family to go to college from a very low working class family although that is not my situation that is still my family's [situation] so that greatly impacts me financially so those are identities that I care about… I'm a Christian, So, um those are a lot of things…I mean yeah I would say, it's me as a person. It's hard to kind of separate the two or the three [identities].

Like Nia, Monique also talked about her socio economic status as one aspect of her identity that she is still impacted by:

> Being from a low socio-economic background and overcoming the odds to achieve success and I don't know if I've had that many opportunities to connect with people based on those identities. But [working with students from lower class backgrounds] is something I want to do in the future.

One way that Black women are able to self-define and self-value their experiences is through the formation of Black cultural activities such as creative expression, forming sisterhoods with each other, and through interactions with church and family (Collins, 1986). In this study, many women pointed to those Black cultural activities as one way they deal with the oppression they experienced based on their multiple identities. For example, a few women described how their spiritual identities impacted them. Alyssa stated, "I am a mother, I am a wife, a Believer-I believe in Jesus Christ and I think they are very much a part of my identity and

they really govern what I see." Monique infused her spiritual beliefs into her professional practice when she felt it was necessary and appropriate:

> So when someone is a Christian and they want to talk about that or when they allow me to support them from that way then there is an opportunity. Like it has been a ministry so that through it, my Christian beliefs are not separate from the work that I do although I don't cross that boundary.

Tina used her spiritual beliefs as a way to deal with some of the struggles she encountered in her professional role:

> I'm a sister, mother, and I am a friend. I'm a wife and I'm an educator…I am a very spiritual person, I do a lot of Bible reading and praying, and I go to service. Which always helps take yourself away from your own issues when you focus on others.

All of the women in the study had multiple identities that they had to manage professionally and personally. Some of them highlighted certain aspects of their identity, such as socio economic status and religion, that continue to impact their professional lives or that they use to counter the intersecting oppressions they experience professionally.

"My race is more salient than my gender"

Black feminist thought posits that Black women experience interlocking systems of oppression based on their intersecting identities and these forms of oppression are inextricably linked (Collins, 1986). In the first subtheme, race and ethnicity is one of the multiple identities that the women identified with the most, it was more salient than their gender identity, yet they had difficulty determining if they felt marginalized based on their race or gender. Despite these identities that are linked together, most of the women in this study found that their race and

ethnicity was more salient than their gender. For example, Nia stated, “If I could get through the things that deal with my race first, then the woman stuff is easy.” She continued, “The rollercoaster [image] would be more related to more race than gender. For me my race is more salient than my gender. They see me being Black first then being a woman, my Black card trumps my gender card.” Similarly, Positive Chica stated, “I don’t know if this is a unique challenge…but sometimes you have to choose between the female or women’s agenda and the color agenda because they don’t always match up…I struggle to try to force people to understand I’m both. I have to remind people that I’m Black too.” Sunshine supported this feeling when she added, “I don’t get criticized publicly because individuals may feel if they say something that would be racist. That’s part of it as well. Being Black, I can’t get away from it. We are there, you cannot miss us.” Like Sunshine, Monique felt proud of her Black heritage and expressed that in her professional setting, “Right so you know I have posters in my office of Black scientists and you know...you see what is in my office so, maybe you have some respect for the history that I refuse to deny.”

Other women provided ways in which their race impacted their professional roles while trying to get support for students of color or when dealing with White colleagues. For instance, Nia decided to “start with race, because gender [stuff is easy]. When she talked about the ways that universities provide programming and support for students of color, she stated:

> I think people are more comfortable advocating for women then they are advocating for students of color. That is what I believe, and feel and know and see on a regular basis. I mean I don’t have the research, but I think everyone can relate to a female...whereas, everybody hasn’t had that strong connection with a person of color. It’s like you can’t

> envision a person being your neighbor or best friend. I think that makes the difference. You know people can relate better to a woman than to a person of color.

In her interactions with White women colleagues, Positive Chica felt that her concerns as a Black woman are often minimized or overlooked:

> A lot of things happen with our female faculty members-they are also majority-so I connect with them but I feel a better connection, more of my needs are met through working with people of color as opposed to just the women. Does that make sense? I'm a be honest, I'm still struggling with it now that I work with both minority and women STEM programs. I struggle with it but I try to be honest when I'm in the room with White women and remind them that women of color-we can't separate who we are and so if that means that we have to talk about race and ethnicity issues within our women's circle then we should do that because that is one of my issues.

While many of the women knew that their racial identity was more salient than their gender identity, at times they struggled to determine which part of their identity was being marginalized. This struggle supports the Black feminist tenet that the various forms of oppression that Black women experience are inextricably linked (Collins, 1986). When discussing some of the oppressive experiences she had during her employment, Monique asked, "What is really due to race and what is really due to gender?" She continued:

> I mean I don't, that makes it a little difficult and so I don't know if any of the challenges I may have faced are because of my race, my gender, or just my personality in general… I don't know how that fits into what part of my identity that is. I think it's part of who I am.

Ella also had a hard time determining which aspect of her identity was causing her to feel different than her White, male and older colleagues:

> That's a good question and I don't know if this is race, gender, or age...My mentors, who are brown, said everyone should call you [by your formal title]. I continue to have a hard time knowing what to do in that space. I don't feel right making people use my title but it feels awkward in this space where Black and brown administrators go by their title where I don't see it with other folks.

In contrast to the women who saw their race as their most salient identity, there were two women who did not agree, did not see how their race or gender connected them to their students, or were reluctant to identify which aspect of their identity was being marginalized. For instance, Monique stated that she did not identify any unique advantages of being a Black woman in her professional role and described herself in her image as "colorless and genderless." While she knew that her race was more salient than her gender, Nia was reluctant to identity any unique advantages that she had as a Black woman who interacted with students of color but instead believed that her other identities were the reason that students connected with her. She stated:

> I personally hope there aren't advantages because I am a black woman. I mean personally, I can connect with other black women and other students of color but I don't know if that is because I am a black woman, or because I am a scientist or engineer, I am not sure but you know, I don't know. I personally think because I have that experience is why we connect and that is the advantage.

Due to the interlocking nature of oppression (Collins, 1986) it is natural for Black women to have difficulty deciphering how each identity has been marginalized or even being resistant to naming marginalization based on their identities. These two women also had a hard time identifying how or why they felt that there were treated differently than their white and male peers. Monique stated, "it is hard to tease out what is really due to race and what is really due to gender, versus what maybe due to personality, you know?" Like Monique, Nia was unable to determine if her experiences were unique from other women or men:

> I mean I don't know if they are unique. I talk to my colleagues and we seem to experience the same things. I have colleagues who are Black who do the same thing and we share the same experiences and I have those who are not Black and maybe we share the same experiences when it comes to being women…Personally, I can connect with other Black women and other students of color but I don't know if that is because I am a Black woman, or because I am scientist or engineer, I am not sure.

Collins (1989) found that academia rejected Black women who challenged negative stereotypes that supported ideas of Black or feminine inferiority. To that end, while the women struggled to determine the reason they were being oppressed, some of them were also focused on rejecting negative stereotypes about Black women's femininity in their professional settings. For example, Elizabeth said:

> My research advisor told me I was more than likely going to be the only one in the room as a Black female…I had to present myself differently so I won't be seen as the angry Black woman, or the mad Black woman, or the mean Black woman. You know? So, I

> didn't do that when I was working at these labs-I ended up being aggressive, and sometimes mad and mean.

In contrast to Elizabeth, Joy discussed how she needed to manage how she communicates in her professional role to negate the negative stereotypes about her race and gender:

> Also, not coming across as the angry Black woman that if I disagree or if I have an opposing viewpoint then it is seen as 'she is the angry Black woman' even if my tone and everything doesn't suggest that…I just make sure that as long as I know I am very calm in how I am delivering what my objective, or rebuttal or argument is and I am calm in my delivery, I don't try to overcompensate, I stay true to who I am. But if you don't deal with me 1:1 beyond the business role, then that is their decision. I stay true to myself but am very aware that when I'm disagreeing with someone, I am very aware of how I disagree and am more in tune with how my message is being delivered.

Black women administrators in STEM have multiple identities that impact their professional and personal lives. Here, the women described how their race is a more salient identity than their gender identity and that it was more difficult to get support around race related issues than around gender related issues. Many of them agreed that their race or Blackness was the prominent identity that people saw when they looked at these women. For others, it was difficult to determine exactly which aspect of their identity was being oppressed at any given time. Some women could not determine if it was due to their race, gender, age or other identity. To counter negative stereotypes about their race and gender, two women battled the "strong Black woman" image in their professional roles.

The "Mother Hen" Identity

"This conversation highlights what I'm saying. My first role model was my mother, who was always talking about career, career, career and then she said I should have a baby. I'm trying to figure out how to do that but when I look around, I don't see a lot of Black women in my line of work balancing but I don't feel like I can just leave because I have responsibilities and we as Black women don't have the same opportunities to either marry a really rich guy or receive an inheritance passed down from generations. So you have to do this balance, you can't step away from your career and raise a family. I don't know what that looks like, I don't see anybody [like me] doing that." Ella

Figure 7. Ella's Image "Muscling Through Transitions."

The second sub-theme of *"This is who I am as a person"* is their maternal or "mother hen" identity and how that impacts their professional and personal lives. Collins (1986) stated that one of the ways that Black women receive a frame of reference about their role in society is through their identities as mothers which shapes their consciousness in concrete and covert ways. The women in this study expressed how their roles as biological mothers to children or as "mother hens" to their students impacted their professional identities. For example, while discussing her identity as a mother, Ella provided the above image that highlighted one of the

major aspects of her identity, being a mother to a young child. She felt like her identity as a mother was sometimes in conflict with her identity as a professional, working woman. She said:

> I am a mother and don't want to work on the weekends or long hours during the week. This is definitely related to gender; I don't know if it is related to race as much but it consumes a lot of my mind. There are Black women I can talk to about career stuff, but very few who are also mothers plus do this work.

In addition to Ella, four other women talked about how being a mother has shaped their professional lives. For example, Tina said, "As a parent I now feel like I have a maternal instinct that I didn't have probably. I have it a little more now and I think it helps me to stay a little bit more in touch with reality and what their struggles are. As a woman I am a little more sensitive to those needs and some things that are unspoken." Positive Chica agreed with Tina. She stated, "Being a mother and a wife, part of what allows me to do the work I am doing so passionately is because I would hope someone would do the same for my child." Joy also talked about her role as a mother. However, she stated that her professional position allowed her to have time for her children. She said, "[This role] allows me the flexibility to be mom and wife and that gives me an advantage to myself but I am still fighting that fight [for pay equity]." In contrast with Joy, Ella struggled to balance her personal identity as a mother with her professional identity as a STEM administrator. She stated:

> I'm having to figure out that balance without a lot of support. Being a mother is such an important part of my world now. It's been a hard time to figure out…this is ridiculous. If there are opportunities to talk to other women who are making it work, I could probably make it work if I got more support at work. But I am trying to chase some of the career stuff too…I don't know what people do. I never felt like I could even go to my boss to

> work out a flexible schedule to accommodate my children. I travel quite a bit, I just don't know how anyone can do this with a family and it sucks period.

Collins (1986) described how Black women's culture is shaped by the relationship that Black women have with their own biological children as well as with the "Black community's children" (p.s22). Half of the women in this study supported this tenet. In addition to their personal identities as mothers, five women discussed how they provide a "mother hen" approach for the students they encounter in their professional roles. For example, Monique said, "So, with regard to gender... the first thing that came to mind was, you know my tendency to have this mother hen approach you know?" Elizabeth agreed with Monique, stating, "They think I'm their mother or something, I don't know… Just being available, and nurturing to the next generation and wanting them to do better than our generation." Joy echoed the statements of Monique and Elizabeth when she said, "I am all of that (on the paper) and then the go to person for diversity… the mother hen… [I provide] guidance…advising…" Positive Chica agreed with all of the women but took her maternal approach a step further in her interactions with students. She stated:

> Sometimes I consider myself a Momma, a big sister, an auntie to guide them. Sometimes a pep talk, sometimes a spiritual leader… when students come to your house to hang out with them and your family in the evening and on the weekends and in some cases it is to help make them feel like they belong here, like they are part of something and someone really, really cares about you. Not if you got an A in differential equations or fluid dynamics but someone who cares about you and really wants you to be successful.

The other women in this study either did not see themselves as a mother hen, did not have biological children, or did not discuss how their identities as mothers impacted them

professionally. In this sub-theme, *the "mother hen" identity*, the women discussed how their identities as mothers to their children impacted their professional roles. Some of the women felt a stronger connection to their students based on their identities as mothers. One of the women appreciated how the position allowed her the flexibility to spend time with her children but another woman has not found that balance yet. Most of them extended their matriarchal role to their professional settings and considered themselves to be a "mother hen" to their students in addition to their official job duties. Other women did not identify with a maternal identity towards their students or highlight their identities as biological mothers to their own children.

Theme 2: "It is just always a struggle"

"Well being a Black woman is definitely a struggle and you know every day life for us is a whirlwind in society and we are just always in the eye of the storm. We have to be self-aware, we have to always be aware of our surroundings, we have to think outside of ourselves and you know we have to um, there are just so many barriers that we have to overcome and it's just a struggle and it's not, it's getting better but it's not over. There is always on ongoing whirlwind in my opinion to be heard, to be respected, to be treated fairly, everything, it is just always a struggle." Tina

Figure 8. Tina's Image "Everyday Life is a Whirlwind."

Black feminists posit that Black women in academia are charged with navigating spaces that have historically oppressed them (Collins, 1986; Harley, 2008), such as predominantly White institutions and other environments. These other environments include the STEM department, the PWI, the physical environment of their offices, and the political, social and cultural environment of their campuses. For the women in this study, they needed to navigate the majority White and male STEM departments, while also responding to the political and social issues that impact them and their students in the greater community. By moving within these oppressive spaces, they felt that their daily lives "were always just a struggle," they were as isolated as someone "climbing a shear rock wall" and were professionally impacted by "what is happening in the country right now."

While growing up, four of the women learned how to manage educational environments in which they were the minority and used those past experiences to guide them professionally. To illustrate, Sunshine, shared:

> I've had a good professional life but also understand that my background, I was raised in an all-White neighborhood, my high school graduating class had 4 Black students out of 700. I was very accustomed to a White environment. It wasn't until I went to college and became part of a Black community. That really is important to note when I talk to others who were raised in all Black environments and come to a PWI, it is very difficult for them.

Like Sunshine, Joy described how her early educational experiences being a minority in an all-White environment shaped her:

> When I was younger I always wondered, why are we around here? Why am I always the only? But my father was always the only and I would hear him talk about those issues in the house. So I learned how to navigate those environments while at the same time being true to who I am. Being brought up, I went to an HBCU because I was always the only [Black girl in school]. So I knew how to navigate a PWI type institution because I grew up in that type of environment whether I was always the only in elementary, middle, and high school or whatever.

While describing how her parents and grandparents' experiences with racism impacted her, she continued:

> The first picture is of my grandparents and parents. To me as a Black woman that means you never forget where you come from, be proud of who you come from. I am the woman I am because of them. I am able to deal with the world around me because of what they provided for me and because of the environment they provided. I feel like I can do what I need to do and still be true to myself. I don't feel like I have to be a chameleon-with my parents and grandparents and learned how to navigate these waters while being true to myself.

Like Sunshine and Joy, Monique described how her experience being a college student at a predominantly White institution, allowed her to teach other students how to survive and thrive in those spaces:

> But for the students of color, just kind of not being afraid to share my story with them. You know not being afraid to talk about how I progressed in school at predominantly White institutions as a person in STEM and you know how I made it through can be

> inspiring. What I do is draw on my own personal experiences some of which are connected to race but which are connected to navigating a landscape with people who don't necessarily look like how I do and in some cases navigating a space that is full of people who look like I do. I want them to do the same thing because at a predominantly White institution, students can meet up with so much animosity on their campuses.

While discussing her own experiences as a graduate student, Marion shared a similar sentiment. She stated:

> I think it is the combination of being at a PWI, and being in STEM. There is an air of elitism in both, or the idea of meritocracy which when you are really highly ranked, there is a perception of what is considered good enough or what is the best fit and some of that is not really linked to or congruent to the values of embracing people from different backgrounds. They are stuck on an old fashioned or dated view of what is quality. The same thing is true for the STEM fields specifically. People have this outdated notion of what it takes to be successful.

She continued:

> Like in order to be successful you have to do XYZ like I do XYZ so people are just looking to clone themselves. And not appreciate if someone looks different or they don't have the same approach or the same profile they can still be successful in the field or make a significant contribution. So I think that those things, there is an overlap there between being a PWI and working in a STEM field. There is so much emphasis on metrics and metrics don't tell the whole story in my opinion.

In their current roles, some of the women needed to learn how to be successful in spaces that were filled with "animosity" such as the PWI and STEM environments. For example,

Elizabeth discussed how she had to learn how White and male faculty regarded her and adjust her actions accordingly, “So just learning them and trying to figure out how they are, and how they think and why they do the things they do. So that means I was adjusting so I could manage the different situations I was facing. I started having to speak up more.” While learning how to navigate a similar space as Elizabeth, Tina needed to teach students how to do the same. She stated, “where I work now being more hands on with students and navigating a program that is designed to introduce high school students to STEM and help them get familiar with a college campus.” Monique thought that her inability to navigate the PWI setting as effectively as her White and male colleagues may have negatively impacted her career advancement in a prior role, “could it be because of who I am and how I navigate and interact and network or don’t do those things?”

In addition to navigating PWI, STEM and other educational environments, two participants discussed the need for a more prominent location on campus, or more accessible physical environment for their programs. They spoke about how the physical space, or where their programs were located impacted their roles and highlighted the isolation that they and their students experienced. Despite the large programmatic reach of her office, Joy and her staff were located in a small, inadequate office space. She said, “A better space to serve the populations that I serve. Space is always a good thing.” Monique also needed to advocate for a better physical space for her programs. She said:

> The program started off in a lower level basement, you know places like that and so, there was some advocacy done on behalf of the program by the director which resulted in a main floor, prominent position in the science building so that when students walk in,

they didn't have to navigate through a maze of hallways to find the program and this was a program for students of color in particular at a PWI.

As these women navigated the multiple environments of their STEM departments and PWIs, they drew on their personal experiences being one of a few people of color in majority White educational settings. In their current roles, they needed to learn how to communicate effectively with their White and male colleagues while teaching their students how to do the same. Finally, two of the women needed to advocate for a more prominent physical environment or space for their programming in order to counter the isolation that they themselves and their students experienced on campus.

The Isolation of "Climbing a Shear Rock Wall"

"The climbing thing has to do with the adversity of climbing a shear rock wall. In trying to increase diversity in STEM, you are hanging on by your fingertips climbing this shear rock wall with nothing under you to catch you if you fall and nothing above you pulling you up, it's all on you." Sunshine

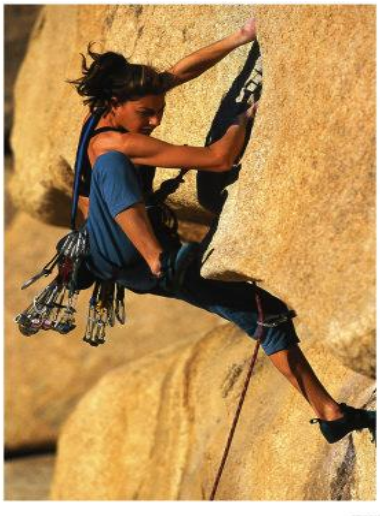

Figure 9. Sunshine's Image "Perseverance."

Black feminist theorists state that Black women are outsiders within academia which leads to the exclusion of their intellectual contributions (Collins, 1989). The outsider within status of Black women administrators in STEM was reinforced by the experiences of the women in this study. They were often the only Black women in their STEM departments, in their offices and one of few Black women administrators in the entire institution. While navigating their department and institutional spaces, they often felt isolated in their roles or like they were on an "emotional rollercoaster." Nia, Tina, Monique, Marion, Joy, Elizabeth, Positive Chica, and Sunshine all had experiences being the only staff person in their office and were often charged with providing effective recruitment and retention programs for hundreds (and in some cases thousands) of students of color in STEM. While she now works closely with a faculty member, Elizabeth recalled a time when she was the only Black woman in STEM at her institution, "When I got here it was just me and it was just me as a Black female in STEM." Joy also talked about the isolation in her role, "Typically you are always going to be the only one in the room, whether it's being the double [minority]-representing being a woman and Black." Nia agreed with both of them stating:

> My office is a one-person office and oftentimes it is only one person or two people, but for the number of people you are dealing with and the number of programs you are putting on, it is just not enough so I think resources are definitely a challenge…we can't make this happen by ourselves.

Based on being the only person in their roles, two of the women felt isolated which impacted how effective they felt professionally. For instance, Ella stated:

> For anything we are trying to do in recruitment and admissions, around diverse students, faculty play a critical role in that piece plus ensuring the environment is welcoming.

> Here, you can't tell faculty to do anything… and it feels isolating in terms of the type of change you can actually create, it feels very limiting…I don't know if I talk about the experience of being a Black woman at my institution, but what I hear from other Black women administrators is that there is and what I see too, is there are very few Black people in administration in general.

Marion agreed with Ella, stating:

> So the same things I feel now are what I felt getting my PhD. The isolation and that pressure to have the answer to very complex issues and not really knowing who might be part of that network. Since there isn't a central location to find people, you just find them, you go along in your work and you come across people so those are the main things…Other people to bounce things off of, I am an office of one, the office is me (laughing) so that can be lonely at times.

When navigating multiple environments in which they felt isolated, such as STEM departments and PWIs, five of the women felt emotionally drained and exhausted in their professional and personal lives. For example, Sunshine provided an image of a woman climbing a shear rock wall and a quote that described the experience of Black women in these roles and settings. She stated, "The rock climbing means it is never easy, it is a reminder not to get too comfortable because the minute you let your guard down, something happens, and that is often something bad." Like Sunshine, Elizabeth also talked about the emotional toll that this work has had on her, "It has been a learning experience. I've had a lot of personal growth in this experience. It has been difficult at times, very difficult. You get very tired; you know it wears you out." When describing her experience as a Black woman STEM administrator at a PWI, Nia

provided an image of a rollercoaster and described how she tries to manage her high and low points:

> There are times when everything is working and everything is kumbaya and there are sometimes I am at a low point where there is a sense of isolation. I don't know who to turn to and where to go. But I just think it is a rollercoaster. There are lots of emotions- some motivating times, some times where I am just struggling. We go through a lot of emotions and because of that rollercoaster it can be mentally taxing and which you know, mental stress can cause physical challenges and a bunch of things with your health so I don't think that emotional [stress is healthy]. You know we all want some type of stability and comfort. I've just learned to cope with that but I think in a perfect world, you don't want to be going up and down, you want some stability. You can find your best…in stability, you can be more productive, more effective, more efficient you know, so the ups and downs definitely are taxing.

Figure 10. Nia's Image "Rollercoaster of the Unknown."

In this sub-theme of *"It is just always a struggle,"* the women talked about the isolation of "climbing a shear rock wall" in which there is no one available to provide direction or support. Most of the women have had experiences being the only person in their role in their entire

department or on their entire campus, which led to a sense of isolation. The isolation that the women felt in their roles led them to question how effective they could be and at times, impacted their emotional stability. They were also impacted by the current political events and racial tensions in the United States.

"What is happening in the country right now."

"*Especially as things have kicked up across the country with student protests, the demands, the conversation has picked up lately. How in my role, how am I going to balance that in my role? with student protests and students really being very impassioned and frustrated with administrations' lack of effort or perceived lack of effort on making change in areas they feel are important and then creating a safe space for students then balancing that with at the idea that we are at an institution of higher learning, how do we facilitate dialogue without squashing dissenting views?"* Marion

Figure 11. Marion's Image "Balance."

Collins (2001) stated that Black feminism must encompass and respond to a "global feminist agenda" that includes political, educational, economic, and environmental freedoms for everyone especially Black women (p.12). This all-encompassing response was evident in these

women's stories. In addition to feeling isolated within their professional settings, the women discussed how the recent racial tensions or *"what is happening in the country right now"* has impacted their role. In the past few years, there have been dozens of reports of police shootings of unarmed Black men and women; students of color who engage in civil disobedience being attacked, expelled, and arrested for lawful protests; the repeal of affirmative action laws that impact the diversity on college campuses; and more visibility given to violence against women on college campuses. While navigating predominantly White and male environments and providing services to students of color, they felt the need to respond to these local, regional and national issues that impact their students and themselves.

In response to these broader issues, six of the women discussed how it impacts their professional roles and how the campus administrators expect them to respond. For instance, Monique wanted to determine how to best support her students in a racially hostile environment, "When you look at what is going on today in fact so you're getting it broadly, you get it in your classrooms, in the smaller settings and you get that test back and it doesn't look like what it should look like so you may have some struggles." Like Monique, Marion struggled with how to balance her commitment to all students-especially White students- during times of civil unrest on her campus:

> On a personal level. As a Black woman, I think about what is my responsibility? I take that balance very seriously. How can I be the best advocate I can [while] creating an environment where people from majority groups are still part of the conversation and are allowed to be in the conversation?

In contrast to Monique and Marion, Sunshine referred to the impact of the current racial climate on her professional interactions. She said:

> A real problem is we still have a group of people who…I once had a gentleman a few years ago who said 'I don't know why were are doing all this [diversity work], look at you, you are successful…we have a Black president now.' It's not that he was racist, but he didn't see the problem. The really awful thing, with the shooting of young Black males, for Heaven's sake is waking people up. Like it's not all in our heads.

Positive Chica also referred to the current racial climate, but unlike Sunshine, she discussed how her authority is sometimes questioned in her role:

> Some folks react in a negative way, and as strange as it sounds in 2016, or maybe not as we watch TV and read the newspaper, but I have had people question me on things and put me in some situations where it is clear that it is not what I am saying but it is who I am. I am a Black woman. It doesn't have anything to do with me being a female.

As she discussed the personal impact it has on her, she stated:

> Sometimes this work is tiring and you think that it is only happening at your university…There have been moments where I think, 'this is the worst thing in the world, I can't believe they are doing this, are they serious, this is ridiculous?'…Overall it has been good but it has not been without challenges. But it's been good because I've learned so I see the good in that. Have there been some experiences that have been unfortunate, just straight out racist ignorance? Absolutely. But have we had some great things take place, some great student successes, yes. Overall, my experience has been good but it hasn't been perfect.

Other women stated that they were asked to respond to any and all diversity related issues that emerged in the national media or on their campuses. Ella said "That's a huge challenge. I need to connect with other [diversity] champions in other departments to accomplish some things

jointly. Anything that looks or smells like diversity…we end up doing a whole bunch of stuff that has some impact maybe." In agreement, Positive Chica stated, "sometimes on campus and within my unit, people expect that they don't have to think about these issues because [they are thinking] 'that's why we hired you' which is ridiculous but unfortunately sometimes that is the mindset of some of the individuals who are here." Ella supported their comments, "Sometimes I think it puts me in a position where individuals look at me, if there is ever a conflict or question about race, they look at me like 'she should be able to answer this.' Or if we see students are feeling very emotional or passionate about what's going on in the news, what should we do and they are looking at me and I'm like, 'aren't we all a part of this?' She continued:

> There is an interesting shift because of what is happening in the country right now with college students making demands of their institutions to make the voices of Black students heard. And there is some interest in listening. There is just a lot of interesting activity happening. However, that work is being pushed to the three or four Black and brown people who are already doing the diverse work. It doesn't feel like anyone else is stepping up to the plate and with the limited impact you can make on the institution, I am really unsure of what's going to happen.

In this sub theme, the women discussed how their professional roles have been impacted by the current racial tensions in the United States. Many of the women struggled to identify the best ways to support their students who were directly impacted by these incidents. At the same time, some of the women were challenged in their professional roles or felt "tired" as a result of all the "racist ignorance." Furthermore, several women felt like they were asked to respond to any and all critical race incidents, even if it was not within the scope of their professional duties.

Theme 3: "The value that I bring to the table"

"A lot of those things apply to me professionally and personally because I am a Black woman. Things I want to see for myself, things that I have to overcome. I want to be empowered, I want to make sure I am afforded the opportunity to be successful and not be held back because I am a Black female. I want those things done for me. I'm hoping as I do the work, I want to benefit from the value of diversity and inclusion, I want to be effective in my role but also want to make sure I can thrive and develop as a person too. I want whatever I do professionally to benefit me too personally." Marion

Figure 12. Marion's Image "Professional and Personal."

Collins (1989) discussed the White, male controlled knowledge validation process within academia that excludes the intellectual contributions of Black women. The exclusion of the voices of Black women administrators in STEM reinforces their status as outsiders within STEM departments and within PWIs. Due to their minority status within STEM departments and predominantly White institutions, and their subordinate position as administrators, many of the women struggled to acquire respect and credibility from their colleagues, and sought pay equity and additional resources for their programs. While they saw themselves as "change agents" who could uniquely identify with their students, they were very concerned with acquiring faculty

respect, being seen as credible in their professional roles, as well as "having the visibility and recognition" for their professional contributions. In theme three, I will discuss how the women sought respect and needed to be seen as credible, while defining the "value that they bring to the table."

Six of the women discussed the impact of needing or having the respect of faculty members on their professional roles. For example, Tina stated:

> I think that when I am in meetings when I, you know talk with [faculty program directors and upper level] administrators, I feel like there is a level of respect that I don't necessarily get off the cuff. I think that eventually it is given to me but it is not something that I receive immediately. Sometimes, I think I am overlooked or I am not acknowledged as much because I don't have a doctor in front of my name but I feel like my job is very critical to the success of our students and my role and what I do for our students is very critical.

Like Tina, Marion also struggled to determine if she has the respect from faculty members or if they value her opinions:

> So trying to find ways to establish [credibility] so I am really mindful of how I am presenting myself, and presenting ideas and it's a lot. It's a lot to have to think about on top of the job itself. It's an extra layer, is this idea going to be accepted is my knowledge going to be accepted as credible, so that's tough. Wondering if it is going to get questioned. And not knowing if I walk away from a conversation that seemed productive, not knowing if they really respect what I have to say?"

While she initially struggled like Tina and Marion in her attempt to get faculty respect, Elizabeth has worked to overcome this challenge:

> Even though I wasn't a faculty, my position was to gain the respect of the faculty so I can get their ear and I can share what our experiences are and I can influence the changes that need to be made from a Black female perspective. So [providing] professional development [to the minority graduate students in her program], is another area where the faculty thought, 'oh that's not our job.' So it has been very difficult and being a Black female who is not in a faculty position, even being in the room and voice my opinions and concerns and to share data and information with them was very difficult at first.

At other times, the women described how their STEM credentials helped them gain more faculty respect than they would have otherwise obtained. Alyssa discussed how her STEM credentials helped her gain more respect than other administrators in similar roles:

> Having the background that I have, I get the respect from the faculty members. They don't look at me as just an administrator. They talk to me differently; they respect my opinion because of my experiences, because I am an engineer. I have a somewhat different relationship with the faculty members.

Sunshine reiterated this point:

> A positive thing is, I've talked to many other diversity STEM directors who do not have the same degrees as the faculty, and the advantage is I get more respect from faculty. Those other people in those roles are often dismissed, like 'you just don't understand STEM.'

Nia agreed with Sunshine and Alyssa, stating:

> One thing that makes a big difference for me, I believe I am able to influence more because I have A PhD in STEM. Yeah people know that I'm Black and I'm a female but when they hear that I have a PhD in STEM, I believe that people feel I am more credible and are more open minded to working and changing things. And that is what I would say has been my advantage as Black woman, having a PhD has been my advantage.

Black women need to have the power to make decisions in their professional roles and have their unique perspectives valued, in order to counter the disenfranchisement they experience in academia (Collins, 1999). In addition to getting and keeping faculty respect, five of the women needed to be seen as credible in their role and have others recognize that their roles were necessary and important to the broader campus, not just the students they served. In some cases, the women did not feel like they were seen as professionals who were qualified to do what they were hired to do. When discussing a previous position as a STEM administrator, Ella said:

> It used to bother me that I felt like I was hired to be a problem solver, critical thinker, and develop solutions using my background in education in a research setting but I was sometimes perplexed about why there was so much micro management.

Tina shared a similar sentiment as Ella when she stated:

> I feel certain people water down the importance of my role and where you know I often think about how things would go if my position didn't exist or if I wasn't in my position and I think about how different things would be but I don't think that others think about it that way. Sometimes, I think I am overlooked or I am not acknowledged as much

> because I don't have a doctor in front of my name but I feel like my job is very critical to the success of our students and my role and what I do for our students is very critical.

Similar to Ella and Tina, Positive Chica said:

> When I'm the first person to come into the room, I've been doing this for a while so sometimes people will mistake me for an engineer. For majority White males, they will look like 'are we in the right room, is this a Black woman?' And for students of color, they are like 'is this another Black person? Yes! I am going to ask some questions. Oh my goodness!'

Marion agreed with the other women, stating:

> I think going back to the idea of being stereotyped, this is not a benefit, but what I feel pretty heavily is that I need to establish credibility pretty quickly. I don't know if I feel it more so than other people but I definitely feel that weight that I need to be on top of things so I establish I am credible especially with faculty. Because I work with them as well.

In addition to having their professional credibility questioned by faculty, staff, and students, in other cases, the women needed to prove that their positions were necessary while trying to get support from others on campus to be successful in their roles. For instance, Elizabeth fought to get buy-in from people on campus regarding the necessity for her role. She stated:

> When I first came to this PWI, there was no interest in diversity period. No one thought there was a need or that it was important. That was the original challenge in bringing a diversity program into a university where no one thinks there is really a need for it. One

> challenge is getting people to understand you know, why things are important because this particular program is funded yes, with a lot of money to support the university. But a lot of times when you write grants and bring programs to campus, it is not necessarily to do what the programs are asking you to do-there are a lot of ways to get around that.

Nia also needed to get people to understand the importance of her work, but unlike Elizabeth, had to show that her professional duties were separate from her personal identity. She stated:

> I often think that because I am a Black woman people think I'm doing the work because I am a Black woman and they cannot separate the charge and mission from the person. Like I think people feel like, there is you know when I talk about students of color people feel like I'm talking about me. I'm not talking about me; I'm talking about the situation. So sometimes I feel like that is a disadvantage of being a person of color doing the work that I do because it sounds a whole lot better for the charge we are trying to take to not come from a person of color or woman.

She also discussed the need for those with the right credentials to do this work:

> People think that you don't need any training that you can just automatically do it and I think it's a disrespect to people who do research on race, social justice and education. It's like 'you're Black or you're Hispanic so you can do diversity work. Check you got it', and no that is not necessarily [true].

Sunshine countered these sentiments and believed that her racial identity and credentials helped lend credibility to her opinions:

> Also, an advantage, back handed advantage, the fact that I am Black in my position gives me the ability to address diversity issues verbally in meetings, where people have to

> listen to me. They may not like what I'm saying but they have to listen to what I'm saying. That raises the profile of diversity.

More than half of the women in this study discussed the importance of acquiring faculty respect and being seen as credible in their professional roles. Some of the women needed to fight to earn the respect of faculty members while others received it more easily due to having a STEM educational background. Despite having a STEM education, Elizabeth and Nia still needed to get other people on campus to understand the importance of their role and "separate the charge and mission from the person." While many of the women in this study struggled to receive respect and be seen as credible, there were other women, who had been in their roles longer, who felt that they had earned respect and were now in positions of power on their campuses. Joy stated:

> As an African American woman in the position that I am in, there are not many of us in this position that also have an impact. So on the positive side, I have laid a foundation for myself where my background and performance speaks for itself. It has given me a certain level of power in this institution that other counterparts don't have, regardless of ethnicity or gender.

Sunshine seemed to agree that has a certain level of respect that some of her newer or younger counterparts do not have. She stated, "My bosses pretty much leave me alone. I have seniority…I can raise the profile of diversity, that gives it the weight. The fact that I am in this position talking about people like me. [More junior] women have to worry about what they are saying and I'm past that."

"Having that visibility and recognition"

Collins (1999) revisited the definition of outsider within status, when she realized that Black women were being commodified within university settings. They were being hired to give the appearance that the institution was committed to diversity while not receiving the resources to really be effective (Collins, 1999). While they struggled to obtain faculty respect and be seen as credible, the women also sought recognition for their professional achievements. Eight of the women in this study described the need for their professional contributions to "*have that visibility and recognition*." The women sought this visibility and recognition in the form of more financial and staffing resources and more upper administrative support. While discussing the need for more support from the President and Provost's offices, Monique stated:

> So, in my previous position, um I would say some of the challenges were just creating visibility for the program um, having the university recognize the benefit of the program…. but that was a challenge just having that visibility for the program and the recognition by the college and the university of you know, the programs' importance and significance.

She contrasted her experience with that of a White woman colleague who operated in a similar role on campus and the differential treatment she received:

> Another person who was not a person of color but who had significant connections [with the President and Provost] on campus and as a result, certain things were provided, certain recognition was given and minority administrators who had been doing that work for a long time did not receive that. But when you asked me about how I felt, yes I felt bad because it felt like the efforts that we did in our program didn't matter.

Like Monique, Sunshine discussed how more recognition from the President and Provost offices would help validate the success she has had over the years:

> My STEM department is the reason we have so many resources and student support programs. Given the success we have had, it would be nice if the university said to the other departments 'Look at what they have done' and challenging them to do something like that.

While Sunshine sought additional recognition from her institution, she stated that felt that her programs were highly visible, "I think that being up front about things, where I am professionally today is owed to the fact that I am a Black woman in STEM. Because I am visible, everybody out there wants to improve diversity and make themselves look good."

In addition to upper administration support, three other women needed support from their White and male supervisors or faculty members. Positive Chica stated, "I wish there were one or two more influential tenure track faculty members who understood the importance of the work we do and were willing to advocate when I'm not in the room, for our students." Ella also discussed how more faculty intervention would help yield better outcomes for her programming:

> It is a faculty centric culture with no office for faculty development, which completely blows my mind. We are allowed to spin in our own circles but there is nothing in place to support or develop those who play such a critical role in the culture of the institution…. but we are not even talking about incremental change, more like baby steps.

Elizabeth discussed the lack of support she received from her faculty supervisor:

> And sometimes being ignored or not being heard is frustrating and then having to figure out how to deal with that when it's your supervisor. You don't want to be disrespectful but at the same time you don't want to be ignored either.

Tina, who is also supervised by a White, male faculty member, concurred adding:

> I currently have two bosses and one of them I see eye to eye with and the other boss is a little off the beaten path which may be a cultural reason for that. But it would be nice to have a little bit more control and ability to make decisions on behalf of the students for the greater good. But I get pushback a lot of times for budgetary reasons and someone not getting it or understanding the importance of the idea.

She continued:

> Sometimes I am in the wrong even if I'm not in the wrong and that's not a good feeling but it's one of those things that...I have to be very careful, I have to choose battles. I have to choose what I complain about; some things I just have to deal with…I won't be able to change it. So that helped me to pick and choose what I will address-what's major-what I can get around, what issues I can deal with on my own and what can I live with? Is this really life or death, is it really worth the fight or can I keep moving and make do without?

In addition to needing upper administrative and supervisory support, four women discussed the lack of financial resources and appropriate staffing for the depth and breadth of programming they need to provide. Sunshine stated, "Maybe I wish I had more money. Greater university level administrative support and interest and involvement. I have good faculty who have been supportive of programs." Nia agreed with Sunshine about financial resources, stating, "I think this is a space where there is much attention to it but there isn't a lot of resources" and

she asked for, “More people to help! More money! More policies that are more holistic.” Alyssa concurred with them:

> So everybody agrees that this is important work, but nobody is willing to put in the additional funds the matching funds that could really take us to the next level. I think it is the provost and president’s office to be quite frank. My supervisor reports to the provost so if we are able to get any kind of funding, we are limited and there are some areas where we could have more funding, more administrative support. Nope. We haven’t been able to convince them of that need to the level that they feel compelled to give it to us. Everyone doesn’t put their money where their mouth is. They think it is an awesome thing that you are doing, they think that it is wonderful, that is the best thing and that it is needed but they don’t want to put any money into it.

While Ella feels like she has enough financial support, she would like more staff support:

> I don’t feel strapped for cash…yet. I would like to have another staff person to help with all of these new programs, it requires another individual and I feel like it will be all consuming and there will be other stuff I won’t be able to get done. I feel like we need a little more support. We have a small number of folks.

Joy had a different experience than the other women regarding financial resources. While in the past she struggled to get funding for additional staff persons, currently Joy stated that she has always had good financial support from her department, “When it comes to financial support in regards to what I want to do within the office or to get the job done, I have that and I’ve always had that. There has never really been a limit on the funding source.”

STEM departments within predominantly White institutions are two spaces that were historically founded for and by White men and have marginalized Black women (Solomon, 1985; Harley, 2008). Further, the voices of Black women are often excluded from critical race and feminist research (Collins, 2001). These dual levels of exclusion were validated for the Black women in this study. While needing more staff members for their offices, more faculty support, and financial resources, the women also sought professional development opportunities so that they could reach this with their White and male peers. For those who did not receive professional development, career advancement, or equity in pay to their male and White peers, they often felt isolated and excluded all over again. For example, Monique said:

> I would say that I have noticed some differences in how, yeah, it's hard for me to make this argument but noticing it was a Black male who was able to leverage his administrator work with a STEM program into a higher level of administration within the college.

Similarly, Elizabeth was frustrated with the lack of professional development or opportunities for career advancement within her role:

> My students feel like I can do so much better can make so much more money. When they graduate-they call back and ask am I applying for another job. They want me to leave.
>
> I don't feel like this is where I am going to remain but how do I get to the next level, what type of training do I need? That's not available to me right now. So I am trying to figure that out on my own. So some kind of professional development training and I don't see where the opportunities lie to advance. Professional training for the staff, for myself as an administrator. I feel like I give a lot but haven't received a whole lot in return

> because there is nothing for me. Now some of the things we are doing is translating over into the departments but where does that leave me? Where is the advancement for me?

Like Monique, Joy mentioned how she has observed pay inequity between she and her male and White colleagues in similar roles on campus:

> As a Black woman in STEM with the degrees I have, the amount of responsibilities I have, there are counterparts who are male, and also [from minority backgrounds], but without the levels of degrees I have but make tens of thousands more than I do but I have more responsibilities than he does. When I look at my direct counterpart, a Caucasian female with similar responsibilities or less, she probably makes $10,000 or more than I do. I have to be very strategic about how I position myself to get what is due, what I feel is due and what others feel is due to me whether it is the new title and pay [increase]. [Whenever I ask for it] it is always compared [to the other colleague's title and pay]. I don't need this to be successful, but what would be great, that would be a sense of validation. Like 'Hey we see what you are bringing to the table, we see what you are doing' Receiving the pay equity across the board would be great.

Ella agreed with Joy stating:

> And, I don't see opportunities created for advancement. I see where other people have multiple opportunities to move around and advance their careers and I don't see that necessarily for administrators of color. And for those administrators, they are all doing diversity work and I wonder if there are limitations for that, for other people seeing you being able to apply your skills in other areas. All the Black women I know are in diversity programs. I don't see, we have two new higher-ranking Black women so that's been really exciting and I see the impact on students, they are very excited about what

they see but they are faculty, right? For example, I know another Black woman administrator who has been in her role for over a decade and who is respected in her role. She has never been invited to a higher administrative position or roles. But she has such a wealth of knowledge about higher education and I do see that as an interesting challenge.

In this sub-theme of *"the value that I bring to the table"* the women described the ways that they needed additional access to resources and equity from upper administration on campus as well as their faculty members and supervisors. Many women needed more financial resources and staff support so they could be more effective in their roles while other sought opportunities for professional development and pay equity with their White and male colleagues.

"I identify with being a change agent"

"This is my passion work; this is what I do. I want to know the statistics about minorities in STEM and those statistics drive my desire to keep going even during those times you are like 'forget this let me go work for someone else.' But we are in 2016, are you kidding me? And they told us the same story 30 years ago when I was a student. They were saying the same things! This picture represents why I must keep going." Alyssa

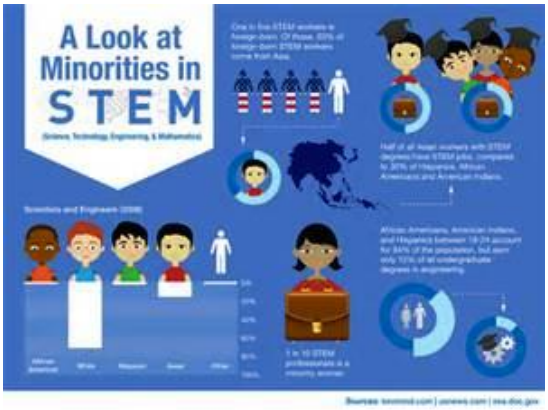

Figure 13. Alyssa's Image "One person, One day, One hour at a time."

Self-definition and self-valuation are two major tenets of Black feminist thought and Black feminists want to empower Black women to describe their lived experiences so that they can counter negative stereotypes about their femininity and personhood (Collins, 1986). As applied to this study, I wanted to give the women the power to define and value their roles outside of their official job responsibilities and describe the "*value they bring to the table."* While doing so, many of the women saw themselves as advocates or *"identified with being a change agent"* who could uniquely identify with students of color based on their shared experiences. Specifically, five of the women defined themselves as advocates or "change agents" on behalf of their students. Nia discussed how she uses her role to advocate for marginalized communities:

> The communities we are targeting are sometimes communities that are marginalized and need people to reach out to them or need people to check in with them to see how they are doing…They have someone to make sure they don't get lost or deal with unnecessary craziness or challenges so that is something that I bring as a person in this area.

Elizabeth advocates on behalf of prospective students of color who are supposed to be recruited to her program via a federally funded grant:

> I see myself a little differently now. I identify with being a change agent, something I didn't know about myself. Really being able to stand up and really voice my concerns to those people who are over me about wanting to do things the right way. If the federal government has funded diversity for specific groups of students, we need to go out and find these particular groups of students and not take the easy way out and say 'we can't

> find them, they are not out there and those types of things'…Because that is how I see it. Everything I do is really to assist and uplift and empower.

Like Nia and Elizabeth, Positive Chica also sees herself as an advocate for students of color:

> I see myself as an advocate, I am not signed up as a mentor on that campus, we have a mentoring program with our peer mentors and professionals in industry but for a lot of the students I consider myself a mentor…I feel a commitment or a passion to do everything I can to help them be successful because I know some of the challenges and roadblocks or challenges they are going to face.

Marion also sees herself as someone who wants to advocate on behalf of students of color in all STEM fields. On her decision to leave a technical STEM position to focus on diversity work she stated:

> I decided I didn't want to stay at the bench but wanted to be more involved in changing the landscape of the field and think of ways to enhance diversity using my critical thinking and analysis skills to work on that problem.

In discussing how she knows she is an advocate for all students on her campus, Marion continued:

> They don't have to explain as much or set up the foundation up, because I already get it. And I really enjoy that a lot, that is what I want to do too, is be that advocate and be that support for students... I see myself as an advocate for not only diversity, but also the inclusion piece. If we aren't expanding to not only the marginalized students and faculty but also the majority groups, we won't get very far or it won't be very effective. I advocate for diversity and inclusion and the balance between the two. How do I balance staying true to myself and the advocate I want to be while being that liaison or advocate

> to the other students too? It's a big balancing act I feel like I have to do-which is why I picked the scale [image]. Me being here as an ally and advocate for these students doesn't mean I am against you; you know? I look forward to getting to that place.

Despite the oppressive nature of being an outsider within academia, Black women can use their outsider within status in a way that privileges them (Collins, 1986, 2000). In addition to being advocates for their students, the second way that eight of the women in this study defined and valued their role was as someone who could uniquely identity with students of color because they had a similar lived experience and were a "literal representative" of diversity on that campus. For instance, Nia said, "I think I'm a role model for students. When they see someone successful, they think 'if she did it, they can do it' and their efficacy increases." Monique supported this, "But for the students of color, just kind of not being afraid to share my story with them. You know not being afraid to talk about how I progressed in school at predominantly White institutions as a person in STEM and you know how I made it through can be inspiring." Alyssa also talked about being able to identify with her students based on her own educational experiences at a PWI:

> Well the feeling of being marginalized or feeling like you don't belong here-I share some of the same feelings that the students feel and I am able to identify on a personal level with them and then I'm able to give them some real life examples of how to navigate that. I was never given the benefit of the doubt in graduate school at the PWI and other people were given the benefit of the doubt. And I have been just as successful as anybody else when you work hard and study hard. I believe I was given a different standard of a level I had to jump over-the bar was raised higher. So I'm able to share that experience of people looking at you and doubting that you are able to do something."

Marion supported Alyssa's statements about identifying with students based on her personal experiences:

> I can get and feel the response to me. It is usually a strong, positive response. They open up to me quickly, they seek me out to talk to. They have a strong connection early, part of it is because they are really wanting that. They trust me because I am from a similar background, either because I am Black or female or have a STEM education, all those things go a long way with the students so I definitely think it is helpful and they crave that level of understanding and they know when they talk to me there is already that level of understanding and they seek me out to talk to. I just get it.

Other women stated that their race and gender were a benefit due to the nature of their professional role. For instance, Tina said, "I honestly don't think that someone who is not from my background could be as successful in this role. I think it is so important because it is focused towards diversity and outreach and helping the Black community, it has to be a person who can relate." Elizabeth agreed with Tina stating, "I can share my experiences based on who I am and by being on this campus at this particular time, you wouldn't have this type of diversity within the graduate school. You wouldn't have anyone who can speak for us from a female perspective." Sunshine agreed with Tina and Elizabeth regarding her unique connection to students of color, "They can discuss things that are gender and racial in nature and I may not agree with them but I definitely won't dismiss them." Also when she is talking to White colleagues about the needs of her students she stated, "That is giving it the weight, the fact that I am in the position talking about people like me and what we feel." Joy supported this statement:

> So, on the one hand with Black students they feel more comfortable coming to me and speaking to me as well as if it were a female student. Also, I am an Black and the initiatives I deal with are diverse initiatives and I don't think they would feel comfortable putting someone in this role who was not an underrepresented minority.

In this sub theme, the women were able to self-define and self-value their roles as "change agents" who could uniquely identify with students of color on predominantly White campuses. By using their marginalized position to their advantage, the women could draw on their personal experiences as being outsiders within their past educational and current professional spaces to help their students be successful in those environments. These experiences allowed them to have a unique professional advantage.

Theme 4: "A place where I can be myself"

"When you go to a conference and have a chance to talk to colleagues from across the country, similar universities. You can inspire each other, get ideas, get excited. The conferences you learn so much, you have so much fun. But it's also a place where you can be you and I can't be me at work. In some cases, if I am maybe too ethnic, some people are uncomfortable. Um, which you know, you shouldn't have to do that but there are some references I am going to have to explain this or I am not really angry this is just the way I talk when I'm serious, I'm okay." Positive Chica

Figure 14. Ella's Image "Mentors Wanted."

Another major tenet of Black feminist thought is the importance of Black women's culture through the formation of relationships with other Black women. Collins (2000) stated that the safest space for Black women is in relationships with other Black women and this was validated by the fourth theme, "*a place where I can be myself*." They also joined with white and male allies on campus who wanted to use their privileged positions on university campuses *"to pay it forward."* Together these sisterhoods and campus allies created a space where the women *"could be themselves*."

In this study, some of the women formed sisterhoods with other Black women that were identified as systems of loyalty and fellowship born out of a shared experience of oppression (Collins, 1986). Eight of the women in this study had created or sought out other Black women in higher education so they could support, mentor and guide each other. Other women received support from family or friends. These sisterhoods or networks they had created helped them survive and thrive in their roles. For example, Positive Chica provided an image that showed her with a group of other Black STEM administrators at a professional conference. She cited the importance of connecting with other people who do this work and how these connections allow her to be her most authentic self. She stated, "Other Black female administrators who are not

even in STEM and one who was, who led by example. That was definitely the thing that motivated and inspired me, seeing the work that other Black women are doing and what they poured into me as an undergraduate so that has stuck with me."

When describing the connection, she had to another Black woman administrator who served as a mentor, Nia echoed Positive Chica's statement, "I've been trained by one of the best administrators in diversity and inclusion in the country. I am able to solve problems because I have a good network of people." Sunshine also described the support she received from other women in similar roles and how she pays that mentoring forward:

> Mentors. People who helped me and guided me. Gave me opportunities to do things. It makes me think about the influence people have on my career and the things that I did. I feel sorry for anyone who doesn't realize they had mentors or who didn't have any. Another advantage I have is I can mentor young Black women faculty in my role. Now I can mentor them and tell them how it is. Mentoring is very important.

Marion discussed how she was positively impacted by Black women teachers in middle and high school whose support helped lead her to her current role:

> It is so important, it was important for me, there were certain people along the way who helped push me forward as mentors, encourages, advisors, they were really really important and having them there. I want to serve in that same role now.

In contrast to the women who had already identified supportive networks, some women also discussed their need to identify new sisterhood networks to meet their current needs as professionals and as Black women with other identities. At the conclusion of each interview,

nearly all of the women asked to remain in touch with me and wanted to connect with the other respondents to this study. Specifically, Marion said:

> There aren't many of us so trying to find a support network for myself, it can be difficult like it was as a student and that was really important to my success being plugged into that network. Because I am early in my career I am in the process of doing that, making sure that I am surrounding myself with people that I can be completely comfortable with, completely open with, talk about professional and personal challenges.

Like Marion, Ella is also seeking other Black women in similar professional roles who can mentor and guide her as she manages her multiple identities:

> I guess I could find some White women to talk to but I feel more comfortable not having to explain so much of myself. I have talked to one Black woman faculty but the rules for faculty are different than the rules for staff and the opportunities to be with your family are just different. So I really need someone to help me figure out the …life…having a new love that is not about my career, managing that with a demanding job in a demanding culture and my husband says I can't quit!

While Tina did not yet have a supportive sisterhood or network, she suggested that she begin a support group for other Black women who provide diversity programming on her campus:

> That would help me a great deal whereas someone else who has been doing it 15 years has mastered the challenges that I have and I would be able to learn from that person and maneuver a little better rather than trying to figure it all out by myself. I don't think there is an opportunity for us to really talk about the issues that we have and the challenges because I am pretty sure I'm not the only person but I don't get to talk to others to hear

> how they have dealt with the different roles or how they have overcome the problems that I am probably experiencing.

Besides the support they have received from other Black women in similar professional roles, two women received much needed support from other places. Elizabeth provided an image that described her experiences in her current role and she connected the image to a historically Black, Greek letter, service organization that she is a proud member of. She stated:

> I am wearing the colors of my sorority which represents my sisterhood, my heart. I am all about serving other people and I think that is represented in the picture. I guess my willingness to be open is shown in both pictures…So people don't have to stumble through the same pitfalls I stumbled through.

Joy provided an image of her parents and grandparents and she titled her experience "Because of them we can." She stated that her family is her major source of support and provide a place for her to herself:

> My husband, my parents, um the people I work for…So those pictures represent how they paved the way for me and I continue to pave the way for those coming behind me for those students and people I work with. They also represent perseverance, endurance…strength…integrity…we sacrificed…I could say that my overall experience has been positive to be honest and I think that comes from, mentors for sure, my counterparts at other institutions giving me advice, guiding me in the right direction.

These women demonstrated one of the key tenets of Black feminist thought, the shared group experience of Black women based on oppressions they experience due to intersecting identities. Here, the women formed sisterhoods of support with other Black women

administrators on their campuses, in STEM and with their family, friends and sorority sisters. Born out of necessity and a shared experience with marginalization, these sisterhoods were key to helping the women persist in their professional roles while allowing them a "place where they can be themselves."

"Helping me is how they pay it forward"

While their sisterhood networks of other Black women administrators were helpful, all of the women provided examples of how they did receive support and validation from faculty and university administrators, many of whom were White or male, and who wanted to "pay it forward." Thus these allies contributed to providing a professional space where the women felt safe enough to be themselves. Collins (1989) referred to academia as a place that centers a White, male, knowledge validation process that marginalizes the contributions of Black women. Due to the privileged position that White men hold in academia, however, when they partnered with the Black women administrators in STEM, the women felt extremely supported and that their programmatic goals and mission were taken more seriously by other faculty, staff and administrators. For example, Monique spoke about her White male faculty colleague who is "very tenured" and who deferred to her regarding diversity issues while also elevating aspects of her program:

> So in my current role, I would say that I have a good deal of faculty support, I have a person with whom I work directly who I would consider...he has been very supportive…his support has been great and with the program that we have I feel as if I have a good rapport and relationship with the faculty members that are associated with

> our program. So that helps because without their support our program would not be as successful.

Ella had a similar experience with her older, White male faculty supervisor who provided professional development opportunities for her that allowed her to discuss negative stereotypes about her race and gender with him freely:

> It was also nice to have my supervisor partner with me. He was willing to have a meeting to talk about what I learned and how it impacted my work on a daily basis. That is probably the biggest reason for me not walking through, and always thinking Black woman first. We had lots of heart to hearts about that and my feelings of being a Black woman. There are a lot of assumptions we make in those settings, and a lot of people may be racist, prejudice or just afraid to say anything wrong and he allowed me to grow more in that space in terms of my racial and gender identity.

Like Ella and Monique, Joy cited the importance of professional support from her White male faculty supervisor as one of the reasons she has succeeded in her role as a STEM administrator:

> My direct manager has always been supportive in what I do and given me, pushing me to do more, giving me the responsibilities and trusting I can handle it. And then, my colleagues who I work directly with. I wouldn't be able to do my job without them.

Other women discussed how White men, who were not their supervisors, have advocated for them in their professional roles. While it is a challenge that she is not taken as seriously as her White male colleagues, Nia uses their advocacy to her advantage:

> Like I always try to have White males advocate because other White males or other men listen to them. They are more likely to listen to them than to listen to me so that I think is

> a disadvantage… It's not very easy to penetrate into this space when you have leaders who have these different biases or don't really believe that all people are created equally can achieve the same level of success or understanding that some populations have barriers and you have to do things differently to reach out to them.

Positive Chica also used the advocacy of White faculty members to meet her professional goals:

> The other resource that I have has been some of our faculty members in STEM who know there may be some challenges that I face, who are majority. They don't know what to do but they have certainly done everything in their power to educate me, help me with my programs, lend a hand. That's been a great resource. I have had about 3 or 4 faculty members who just want to help and are willing to do everything they can to help me. They understand the work and believe in it and helping me is how they see themselves paying it forward.

In addition to the advocacy of White, male faculty members and supervisors, six women described how upper administrative support-like department Chairs, Deans, Vice Presidents, and Provosts- has been beneficial to their professional efficacy. Sunshine stated, "The job I have, being director of a program and my bosses are usually the dean, and they pretty much leave me alone. I get to do kind of what I want to do. I can't recall my bosses ever saying 'No you can't.' The position gives you the opportunity to be creative in the programs you have developed." Nia supported this statement:

> My leadership as far as the dean, and also the university level leadership. My office is on their radar and they are often lending support whether it is financial support or resources. So seeing the department chair trying to put processes in place so they can look at things

> equally or recognizing their biases when talking about HBCUs or those from low SES and what the expectations are- making our process more holistic. The second thing is the faculty. The faculty and staff have been amazing.

Like the other women, Ella also received a lot of support from her Dean:

> One huge thing is support from the dean. He has been extremely supportive, publicly supportive, when we are in meetings with faculty, he encourages people to participate, to be engaged and involved and also in written communication. It has to be a top down model. If whoever is above you isn't outwardly supportive, people will see it as 'either we can pay attention or not pay attention.'

While not White men, Alyssa received support from other Black women in upper administrative roles who advocated for her in front of the President:

> My last two supervisors are Black females-both of them have been very supportive. They value my opinion, any recommendations I have, and they carry out the recommendations. They don't second-guess me all the time so I have had a really good experience and I would contribute that to the fact that I work for Black women, which makes a huge difference. I have worked for two Black females who have supported me, we have gone to speak to the president's cabinet about the good work, and they have been very supportive and take my recommendations seriously.

Like Alyssa, Elizabeth received support from another Black person on campus who was hired into a higher administrative role and supported her role. After spending a few years as the sole diversity in STEM professional on campus, Elizabeth discussed the importance of getting help from an Black male who was hired to support her role:

> So having him-I had to pray about that thing-I needed support on that campus. He came into that position and we worked closely together... He has been a resource and a mentor to me and has helped a lot.

In this sub theme, *"helping me is how they pay it forward*," the women discussed the importance of receiving advocacy from White and male faculty allies on campus as well as the support they received from the upper level administrators. By using their privileged positions within academia, these allies were minimizing the ways that the Black women in this study were marginalized, supporting them in their professional goals, and subsequently advancing the stated mission of the institutions.

"Lisa" Meta Case

Lisa is a Black woman administrator in STEM at a PWI and has been in that role for over 5 years. She has an educational background in both a STEM discipline and education and is versed in social justice and advocacy issues. She was hired by her university on a multi-million dollar federally funded grant to provide STEM programming for students of color through a summer research program and an enrichment program during the academic year. When she was first hired, she was located in the back of an office space shared with two other campus administrators. She did not have a private space to meet with her students or make important phone calls during which she may discuss sensitive information. The other administrators in her office were not working for diversity programs so she did not feel like she could receive full support from them.

Of the multi-million-dollar grant that she was hired on, Lisa was given $100,000 to conduct a summer research program for 15 students as well as provide year round programming

for students of color on her campus. She was not provided a separate budget for discretionary items and often had to provide detailed rationale to purchase items for her programs such as meals, providing transportation, increasing stipends so that she could attract more students of color, or attending national recruiting conferences where she could meet more qualified students who were interested in graduate degrees in STEM majors. She was not provided with any administrative support and had to balance her professional duties with other tasks that were outside of her job description like ordering meals for faculty meetings, setting up teleconferences for research seminars, and making photocopies. During some of these meetings, she was often "treated like the help" when some faculty members complained about their food, needed to be shown to the restroom, or could not setup their audiovisual equipment properly.

During an early encounter with her White male faculty supervisor when they were reviewing applications for the summer program, Lisa was told that students from HBCU's and community colleges did not do well at institutions like the one she was employed for. When she tried to counter these arguments with statistics and data about their high levels of success in graduate school, she was told that she just did not understand STEM. When Lisa reminded the application committee that the grant proposal promised to host a summer program for students who were under-represented in STEM majors, like African Americans, Hispanic/Latinos, and Native American/Pacific Islanders, some of the faculty retorted that "diversity can mean many things" and "we can use our discretion." She later learned that more than half of the program slots went to White women and White men. In another conversation, she was told that she needed to try harder to understand the research of the faculty in her STEM department, although she was hired to do recruiting and provide programming for students of color. When she tried to solicit faculty to host students during the summer, very few were willing or interested in doing

so. As a result, she sought out other male and White women faculty allies who wanted to host a student or who would provide a safe, mentoring environment for those students.

During a site visit with a national federal funding agency, Lisa was astonished when her supervisor presented the diversity program data for the first year. He highlighted all of the gains they had made while overlooking all of the flaws in their application process or the ways in which the actual program differed from what was promised in the grant proposal. Even more surprisingly, the federal funding agency did not seem to challenge him, counter some of his misleading conclusions, or ask Lisa what her opinions and experiences were. In addition to these grievances, Lisa overheard stereotypical comments about herself, her level of education and intelligence, her appearance, and her marital status. She did not think that her other identities as a wife, mother, educator, and Black woman were acknowledged or seen as valuable. She heard disparaging remarks about the other Black woman administrator who was also working on the program. She dealt with feelings of self-doubt, felt isolated in her professional setting, and struggled with feeling effective in her professional role. She quickly sought out support from other Black women in similar roles as well as from White and male allies. Despite these challenges Lisa saw her presence in that role as important for the students she was encountering. She felt protective of them and wanted to shield them from some of the negative experiences she had while helping to usher them toward completing a STEM degree. Early on, Lisa realized that her experiences were similar to what some of her students experienced and she wanted to do something about it.

Summary

In this chapter, I provided a narrative description of the 10 women participants who responded to the research question: how do Black women administrators in STEM at predominantly White institutions experience intersecting marginalization based on their positions, their locations, and their identities? I provided a detailed description of the four major themes and their accompanying sub-themes that were identified by the women in this study. Using a Black feminist lens and a phenomenological data analysis process, I highlighted the essence and meaning of their experiences as Black women administrators in STEM at predominantly White institutions. The first theme was *"this is part of who I am as a person"* where the women recognized that of all their identities, their race was salient over their gender and showed how their "mother hen" identity impacted their personal and professional lives. The second theme, *"it is just always a struggle"*, was described as one woman feeling like "everyday life was a whirlwind." While maneuvering in majority White and male spaces, the women dealt with the "isolation of climbing a shear rock wall" in their setting yet needed to respond to national and local social issues that impacted themselves and their students.

In the third theme, the women wanted to be recognized for the *"value they bring to the table."* Specifically, the *women "identified with being a change agent" who* could uniquely identify with the needs of students of color based on a shared lived experience. The fourth theme, *"a place where I can be myself*", was illustrated by the women creating informal sisterhoods of support and joining with White and male allies on campus who wanted to "pay it forward.". They provided examples of how they still sought financial resources and appropriate staffing for their offices, and professional development for themselves. By receiving pay equity and career advancement opportunities on par with their male and White colleagues, universities would be

showing these women that they are valued on their campuses and bringing their voices from the margins to the center of the academic culture. I ended this chapter with "Lisa," a meta case based on a composite description of these women's experiences in their professional roles. The information in the meta-case is drawn from the experiences of several women in the study and is presented in way to provide a collective experience.

CHAPTER 5

DISCUSSION

This week, I attended a conference sponsored by the National Science Foundation, one of the federal agencies that sponsors many of the programs I oversee in my professional role and who provide millions of dollars towards STEM retention programs. During one of the panels, an African American woman administrator came to the podium and asked, "I keep hearing about all the support for students but what about us? The program directors who have to deal with all of these issues day in and day out for decades, what about support for us to prevent burnout?" My ears perked up and ironically, a panelist mentioned my dissertation and motioned for me to approach the bench.

I gave a brief overview of my study and some of the preliminary findings and afterwards, I was approached by almost a dozen people who thanked me for my topic, offered to be participants and who asked me what I was doing next with the research. They suggested I get published immediately, that I do a webinar for NSF, and that I travel and present at conferences. I was overwhelmed, I felt affirmed and mostly motivated to complete this study so that I can do something meaningful with the results. For the first time, the ways that I can use research for social justice change became apparent to me. Now, I can fully see how my new professional identity as a scholar-researcher-activist can combine with being an advocate-advisor-counselor for my students. I can't wait to

see how I combine these two worlds and roles. (Jackson-Truitt, Reflexive Journal Entry, 2015)

This study was a phenomenology of the experience of Black women administrators in STEM at predominantly White institutions (PWIs). I conducted semi structured interviews with ten Black women STEM administrators at PWIs from all across the country. They self-identified as Black, and as women who provided STEM retention programs for students of color in their professional roles. In addition to race and gender, we discussed their other intersecting identities and how their lives are impacted by how they are perceived based on those identities. Using Black feminist thought as the theoretical framework, I examined their experiences with racism, sexism and other interlocking forms of oppressions, allowed them to self-define and self-value their roles on college campuses, and what their experiences were as outsiders within both STEM departments and predominantly White institutions (Collins, 1986). In this chapter, I will provide a discussion of my research findings as they relate to my research question and to other similar studies, a description of the study limitations, implications for the counseling and student affairs fields, and suggestions for future research related to Black women STEM administrators.

Summary of Findings

Collins (1986) argued that Black women have similar group experiences based on a shared history of marginalization and oppression but that they also have unique standpoints that must be highlighted. Ong, Wright, Espinosa, and Orfield (2011) stated that Black women in STEM have experiences being an outsider within STEM departments and PWI settings. The significance of this research study is to illuminate the experiences of Black women STEM program administrators, a group with a specific experience being outsiders within PWIs, within

STEM departments and even within spaces that are focused on diversity in STEM. The research question that I answered is: How do Black women administrators in STEM at PWIs experience intersecting marginalization based on their positions (as administrators), their locations (within STEM and PWI spaces), and their identities (as Black women)? The four themes I identified are: (a) "This is part of who I am as a person," (b) "It is just always a struggle," (c) "The value that I bring to the table," and (d) "A place where I can be myself."

While very few studies have examined the specific experiences of Black women administrators in STEM at predominantly White institutions (Henry, 2010), the research themes I found support those in other similar studies about the experiences of Black women in STEM and at PWIs. However, the women in my study faced some different and unique challenges also. The double bind of race and gender is the first major theme that I identified during the literature review (Malcom, Hall, & Brown, 1976). This previous finding is directly related to my first theme, *managing multiple identities*. This theme answers the portion of my research question about the ways that Black women STEM administrators are marginalized based on their identities. In my study, the Black women were marginalized based on their identities because they had to manage multiple identities like being mothers, recognized that their race was more salient than their gender, but also had to confront negative stereotypes.

Other studies support my findings. In their follow up to the seminal work on women of color in STEM, Malcom and Malcom (2011) conducted an overview of the research about women of color faculty in STEM and found that problems related to the double bind, or the intersection of race and gender, are still an issue. The authors found that much had remained the same in the forty years since the original research. In another study that supports my first theme, Espinosa (2011) studied women students in STEM and found that Latinas especially struggled

with being marginalized based on their gender, race and ethnicity. In another similar work, Patitu and Hinton (2003) studied Black women administrators and faculty at PWIs and found that they were marginalized but could not separate one form of oppression from the other. While most of the women in my study stated that their "race is more salient than their gender," some of them dealt with ambiguous oppression. For example, Nia, Monique, and Ella could not determine if they were being marginalized based on their race, gender, age, or other intersecting identity.

Black feminism also implores Black women to reject negative stereotypes that support the idea of Black feminine inferiority (Collins, 1989). Simpson (2001) conducted a study that laid the groundwork for future studies, including mine, in which she interviewed 21 Black women administrators at PWIs and found that they needed to rely on families and their children for support (which supports my sub-theme regarding "mother hen" identities), felt isolated within their roles (discussed in the second theme of my findings), and needed to display a non-threatening communication style in order to dispute negative stereotype (as also discussed in my first theme). Henry (2010) did a qualitative study of Black women administrators who dealt with race and gender related discrimination who needed to reject negative stereotypes. The results of my study support these previous findings. Like Elizabeth and Joy, who didn't want to be seen as "angry," "aggressive," or "mean," these Black women needed to reject negative images while focusing on having an effective communication style.

Isolation was the second theme identified during the literature review regarding Black women's experiences at PWIs (Grant & Simmons, 2008; Jean-Marie & Brooks, 2011). Black feminism states that Black women are outsiders within educational systems that exclude their intellectual contributions (Collins, 1989). In an extension of these previous findings, I argue that this exclusion is done through physical isolation and by employing low numbers of Black

women administrators in decision making roles in STEM, thus silencing their voices. West (2015) conducted a previous study that supports my findings. She highlighted the isolation of Black women at PWIs and found that Black women in student affairs were isolated both numerically and psychologically (West, 2015). The theme of isolation connects to my second theme, *navigating multiple environments* and the isolation of *"climbing a shear rock wall.*" This theme answers the research question about the ways that Black women STEM administrators are marginalized based on their locations and positions. For example, eight of the ten participants in my study had experience being the only person employed in their offices that were supposed to provide STEM related programming to dozens, hundreds and in some cases, thousands of students on their campuses. They found their experiences to be isolating due to being the "only Black woman" in their offices, departments and one of few in their institutions.

Limited opportunities for career advancement for Black women administrators at PWIs is the third theme that I identified during the literature review (Gardner, Barrett, & Pearson, 2014; Glover, 2012). This previous finding is reinforced by my fourth theme, *seeking support and recognition*, which is done through providing access, equity and resources to the women in this study. This theme answers the research question about the ways Black women STEM administrators are marginalized based on their positions as administrators and not faculty and their identities as Black women. Collins (1999) worried that PWIs were hiring Black women in diversity programming in order to give the appearance of a commitment to diversity, without actually providing the resources for them to be successful. In order to reject this commodification, eight of the participants in my study sought support like professional development opportunities, a more clearly defined career path, pay equity with their White and male peers, and more financial or administrative staff support to be more effective in their roles.

Similar studies supported my findings in this theme. Specifically, researchers found that Black women administrators do not have a clearly defined career path, lower compensation and fewer opportunities for advancement than their peers from other racial and gender groups (Gardner, Barrett, & Pearson, 2014). Similarly, Lloyd-Jones (2011) found that the Black women administrators in that study had minimal decision making power or financial resources in their professional roles.

Several researchers have examined the experiences of Black women in academia and their findings support the themes found during my study (Domingue, 2015; Henry, 2010; Hinton, 2010; Kishimoto & Mwangi, 2009). Hinton (2010) studied Black women faculty at a PWI and discussed ways for them to use their outsider within status positively to create a community at the margins. Henry (2010) did a qualitative study of three Black women administrators at the same PWI and observed that the women struggled with establishing credibility, were reluctant to directly name a negative experience as racism or sexism, and needed their supervisors support to be effective in their roles. Harley (2008) wrote a book chapter that synthesized dozens of research articles about Black women faculty and found that they struggled to navigate the promotion and tenure process, and managing their research and teaching duties with their service activities. Many of the women in my study had similar experiences as these research findings. Five of them were emotionally exhausted or felt like they were riding an "emotional rollercoaster," eight of them felt isolated, and four of them used spirituality and family support to cope. While this previous research supports my findings, none of these studies are specifically focused on Black women administrators in STEM at PWIs.

Although Black women share a common group experience due to the interlocking nature of oppression, Black feminists are responsible for highlighting the unique standpoint of Black

women (Collins, 1989), such as the administrators in STEM at PWIs who are absent from existing literature. While I observed the similarities between the experiences of the Black women in this study with Black women in similar studies, such as the experience of the double bind of race and gender, feeling isolated within their professional role, and having fewer career advancement opportunities, I also observed some key differences that were not highlighted in the literature. Therefore, I will contrast my study findings to other studies that focused on Black women faculty in STEM and in academia.

First, the women in my study felt the need to respond to the current U.S. racial tensions as it impacted their professional roles in dealing with students of color. Black women administrators in STEM have a primary role of providing programming, mentoring and support to students with less focus on teaching, conducting research, or publishing, like faculty do. Thus, they felt an increased need to respond to issues impacting their students, even if it was not within their official job description. For example, Monique stated, "I don't have to write proposals at the same rate as a tenured faculty person so I get the advantage of being a mentor to promote success amongst our students in this very critical population." While she saw her access to students as an advantage, she and other women needed to respond to issues that directly impacted them outside (and often inside) of the classroom.

Other researchers have identified how campus, racial climates impact students, staff and faculty of color. Solórzano (2001) applied critical race theory to a study about how Black college students deal with racial micro aggressions. Like the women in my study, the students felt isolated, experienced self-doubt, and the imposter syndrome, which negatively impacted their retention. To deal with the racial micro aggressions, the author found that students located "racial counter spaces" that provided safety, countered damaging perceptions about their race, and

provided a positive racial climate. These counter spaces are often provided by women of color, like the Black women STEM administrators in this study, and help students remain on predominantly White college campuses (Solórzano & Villalpondo, 1998). These findings align closely with the Black feminist tenet of using a marginalized position to "talk back" to a dominant oppressive culture in academia (hooks, 1989), using their voice to provide their own self-value and rejecting negative stereotypes (Collins, 1986). Yet, the responses from the women in my study expand on prior research about advocacy for students of color in response to racial climates because they also discuss the local and national racial climate at length and how that has impacted their students and themselves. By forming these "racial counter spaces" within their STEM program offices, the Black women STEM administrators are able to respond in an appropriate way to not just campus wide, but also local and national situations.

Collins (2000) found that when Black women worked as activists within institutional settings, it was to promote institutional change and to ensure group survival. This tenet is supported by subtheme three of this study, *being advocates for their students*. Black women STEM administrators have a strong identity as diversity advocates that is in contrast to the professional identity of faculty. Whereas, faculty are primarily responsible for conducting research, teaching, and service, Black women STEM administrators have a professional identity that is more focused on student recruitment and retention programming. Due to these different professional identities, the women in this study primarily "identified with being a change agent" on behalf of students of color-a role that was not within their official job description. Several researchers have highlighted the need for diversity advocates within higher education and STEM departments. Park and Denson (2009) conducted a quantitative study about diversity advocacy identities in all collegiate majors. The researchers concluded that STEM faculty had the lowest

scores on the diversity advocacy profile, likely because they were exposed to low numbers of diverse students in their classrooms or because STEM fields place a lower priority on integrating diversity scholarship in their research. Carnevale and Fry (2000) recognized that STEM fields need diversity advocates in order to increase faculty's perceptions about the need for more diversity and not see it as a way to lower standards-a worldview that alienates students, administrators, and faculty of color. Patitu and Hinton (2003) concluded that Black women administrators in all majors were vital to the success of students based on their unique life experiences, worldviews, and rich cultural backgrounds. The knowledge gap between the STEM departments they provide programming for and the diversity related worldview they bring to their professional work, presents a unique opportunity for Black Women STEM administrators.

Another key difference between the literature about Black women faculty and Black women STEM administrators, is the lack of clearly defined career advancement opportunities for the women in this study. Several researchers have studied the experience of women faculty in STEM as it relates to their potential for career growth. Figueroa and Hurtado (2013) found that women of color faculty in STEM were less satisfied with their compensation, professional isolation, and work life balance than their male peers. Yet, their study was only focused on the experience of faculty and did not include program administrators who are considered staff persons. While women faculty, especially Black women, certainly deal with marginalization and struggle to be as successful during the promotion and tenure process as their White and male counterparts (Harley, 2008), Black women administrators in STEM do not have a defined career path or as many opportunities for professional development on their campuses, regardless of the success of their programmatic outcomes. Further, Black women STEM administrators are likely to be hired in positions with no clear career pathway or positions that are time limited because

they are connected to grant funded programs. More than half of the women in my study were currently or had previously been hired into a grant funded position. In a few cases, the institution did not choose to continue their professional role once the grant monies ended and they were forced to leave the institution altogether to seek new opportunities for employment. This likelihood for turnover within STEM program administrative positions also minimizes the continuity and long-term impact of the retention programming, thus impacting students in those majors.

To reject the limiting opportunities provided by a career focused on diversity in STEM programming, some women differentiated their roles. Joy stated, "they recognize that I do more than just diversity." Alyssa followed up with, "Having the background that I have…they don't look at me as just an administrator." Ella supported the limitation of other Black women administrators in her field, "All of the Black women administrators I see are in diversity programs. We have two new Black women faculty so that's been really exciting and I see the impact [of their presence] on students, but they are faculty right? So that's different than being a staff person, you don't see the upward mobility." Other women counted on their faculty titles to help them be seen as "more than just diversity" or "more than just an administrator." Marion stated, "I have a faculty partner and a faculty appointment, which is important for the recognition and the title."

The fourth theme that I observed in my study that is different from other similar research about Black women in STEM at PWIs is the need to acquire faculty respect and establish credibility quickly. For example, Simpson (2001) also studied Black women administrators but all of her participants held earned doctorate degrees and those respondents did not indicate as much trouble establishing credibility regarding their roles. In my study, many of the women

were aware of their unique skillsets and ability to serve as "change agents" for their students, but they still needed to validate the importance of their role to faculty and other key administrators on campus who may not fully embrace or appreciate the need for STEM diversity programs. The women with STEM credentials and doctorate degrees shared this experience with those without the same credentials. As Nia described some of the struggles she encountered garnering support for her programs, she stated, "and you get pushback from people who have biases based on race, and sex. Some people know they got them and some act like they don't know they got them." Many other women supported the need to justify their presence on their campuses. Tina said" certain people water down the importance of my role" and Elizabeth stated, "one challenge is getting people to understand the need for my role."

Limitations

This phenomenological study highlighted the meaning and essence of the experiences of 10 Black women administrators in STEM, yet there are some limitations. The first limitation is I would have probed more when I observed some incongruent statements. Siedman (2013) provided a guide for conducting phenomenological interviewing and suggested that the interviewer explore deeper in order to get clarity of a participants' true meaning, follow up or ask to hear more about a certain subject. For example, Nia said that she had "lots of support" throughout her educational and career journey and in her current role, but she only had an office of one staff person and needed to locate White males to advocate on behalf of herself and her programs. Similarly, Monique stated that she was "colorless and genderless" in her drawing but described an experience at her previous institution that sounded like discrimination based on race and gender. She observed both a White woman and a Black man in similar roles receive more resources, compensation, and career advancement than she did although in some instances, their

roles, credentials, and seniority were parallel. While Joy said she has always received enough financial support to run her programs, she still struggled with having adequate office space for her students, having enough employees to meet the needs of her programs, and struggled with getting pay equity like her White and male peers. Seidman (2013) also suggested a three-part interview model that would allow time to explore themes that were not fully discussed in prior interviews. Due to timing, I was not able to follow up with each participant for whom I had additional questions, but I would suggest that future research on this group include adequate time to follow up with the women as needed.

The second limitation of this study is the potential for subjectivity during the data analysis process. As a Black woman administrator in STEM who also identifies with the core tenets of Black feminist thought, my role as the researcher played an important part in the formulation of this research study as well as the data collection and analysis process. As such, I needed to be mindful of how much my presence during the interview shaped the women's responses. One of the potential limitations of qualitative research design is the over influence of the researcher which could result in response bias (Creswell, 2014). While I tried to reduce response bias by limiting my feedback and avoiding leading questions during the data collection (Seidman, 2013), and by doing reflexive journaling throughout the entire research process in order to bracket my assumptions (Morrow, 2005; Watt, 2007), there is still the potential for some subjectivity during the data analysis process that must be considered when interpreting these results.

The third way that this research was limited, is the types of institutions that the respondents were employed by. For example, some universities were larger, more research intensive, or more STEM focused than others. Also, some of the women were newly employed

in their roles while others were employed for many years. To address these delimitations, I provided a narrative of each participant that highlighted her lived experience over the specifics of her job setting. Since this study is a phenomenology that is guided by Black feminist thought, my attention to empowering the women who agreed to participate in this study and their voices is integral here. Therefore, there is much less emphasis on ensuring that each of the participants' met certain institutional or other work related criteria.

Implications for Practice

Black women administrators in STEM are an integral aspect of the recruitment and retention of students of color and other faculty and staff of color, yet their intellectual contributions are often overlooked and undervalued (Hughes & Howard-Hamilton, 2003; Miller, 2003; Myers, 2002). Using Black feminism, I elevated the voices of Black women STEM administrators in a way that provides greater self-value and self-definition and counters their historical exclusion from STEM spaces, PWI settings, and diversity spaces that are meant to be inclusive. Winkle-Wagner (2009) identified that for Black women at PWIs, "race was gendered and gender was racialized." This means that Black women were often excluded from feminist and critical race based dialogues. This exclusion is also seen in STEM diversity spaces that are meant to be inclusive of people of color in STEM but that do not provide adequate resources to the STEM program administrators, like the Black women in this study, who also need education, empowerment, and opportunities for advancement.

Other researchers applied Black feminist tenets to their studies about Black women in academia in ways that provide support for the implications I present here. First, like the women in my study, Black women in academia feel like *outsiders within* predominantly White and male academic spaces, as well as STEM departments (Henderson, Hunter, & Hildreth, , 2010;

Holmes, Land, & Hinton-Hudson, 2007). Further, Black women struggle to negate stereotypical images of themselves that contribute to their perceived inferiority (Domingue, 2015). Yet, many scholars suggested that Black women can use their marginalized positions to the benefit of themselves and other marginalized groups in academia (Alfred, 2001; Hinton, 2010; hooks, 1984). For instance, one researcher showed how Black women created a supportive community for themselves at the margins by recognizing the weaknesses of those at the center (Hinton, 2010).

One major tenet of Black feminism is that theory about Black women should be created by other Black women. As a Black woman feminist, I will provide implications and suggestions here that will allow universities, federal funding agencies, and the counseling and student affairs profession to address and minimize the outsider within experiences of the women in this study. Further, by framing some of the recommendations in a social justice and multi-cultural counseling framework as recommended by the American Counseling Association, I will provide suggestions that allow the Black women to "talk back" to the dominant systems of oppression as a means of self-empowerment (hooks, 1984). Based on the connection between the Black feminist tenets of self-definition and self-value, these recommendations will be framed by the multicultural career counseling and development competencies, as well as the multicultural and social justice competences developed by the American Counseling Association (ACA, 2015).

Black feminism is focused on highlighting how Black women must negotiate their multiple identities while seeking empowerment in marginalizing cultures (Collins, 1989). The empowerment they seek can be connected to social justice and multicultural counseling theories. As explained in chapter four and above, most of the women in this study struggled to obtain equity, access, participation or harmony in their professional roles at PWIs. Social justice

scholars identified the four main areas of social justice counseling as *equity*-or the fair distribution of resources; *access*-or the ability to get crucial resources, power and services; *participation*-or the right to be able to fully participate in decisions that impact your life; and *harmony*-when everyone has their needs and rights taken into account (Crethar, Rivera, & Nash, 2008). Constantine, Hage, Kindaichi and Bryant (2007) stated that social justice counseling could help clients identify experiences with oppression and lead to client empowerment and advocacy.

Black women in STEM departments in higher education experience self-doubt, suffer from the imposter syndrome and feel invisible, which yields lower morale and lower retention rates from these women at all stages of their educational and professional careers (Solórzano & Yosso, 2001). The authors described *self-doubt* as the internalized "legacy of racism and sexism," *imposter syndrome* as questioning why, out of all the capable women of color throughout my educational experiences, I find myself here alone, and *invisibility* as feeling foreign, ignored and invalidated in a historically White, male environment (Solórzano and Yosso, 2001). Consequently, the women in my study felt isolated in their roles and like they were "climbing a shear rock wall with nothing above to pull you up and nothing below to catch you if you fall." While feeling isolated within their professional roles, many women also felt isolated on their college campuses, sought out other supportive networks or women in similar roles, and felt like they were riding an "emotional rollercoaster."

Since some of the women in my study struggled to identify the cause of their oppression and were reluctant to name the oppression, social justice career counseling could alleviate some of the resistance and increase their feelings of empowerment on college campuses. Based on the findings of this research study, there are some explicit implications for the counseling and

student affairs profession, for university President and Provost offices, and for federal funding agencies.

Counseling and Student Affairs Profession

Jones, Wilder, and Osborne-Lampkin (2013) applied Black feminism to the doctoral advising of Black women graduate students and their recommendations will be adapted for the population in this study. Those authors found that the graduate students needed their experiences validated, needed to be educated about the academic environment, wanted their advisors to advocate on their behalf by blocking any unnecessary roadblocks or detours, and needed their advisors to be aware of their experiences with multiple systems of oppression (Jones, Wilder, & Osborne-Lampkin, 2013). The ACA multicultural and social justice competencies that are focused on counselor self-awareness aim to encourage privileged and marginalized counselors to recognize their biased attitudes and beliefs, develop skills that consider the worldview of their clients (or students) and take action to challenge any negative views or strengthen positive worldviews (Ratts, Singh, Nassar-McMillan, Butler, & McCullough, 2015). By providing culturally competent support and resources to this group of women, campus counseling centers and other student affairs professionals are uniquely poised to provide the resources that these women need. Based on their lived experiences navigating sometimes hostile environments, some suggestions for campus counseling or career centers are:

1. **Provide professional development workshops and seminars that are specific to Black women administrators, or "marginalized counselors" to teach them how to successfully navigate in an alienating environment.** In 2010, the "Women of Color in STEM Mini Symposium" gathered a group of national experts, educational leaders, and

key stakeholders to report on the experiences of women of color in STEM at all levels (Ong, 2010). Researchers suggested that women of color in STEM needed professional development programs to help them build their career advancement strategies like interviewing and salary negotiation so they could reach parity with White males and career preparation tips for succeeding in STEM (Ong, 2010). A similar professional development program could be integrated into existing continuing education programs on college campuses.

2. **Create a supervision training curriculum for supervisors of Black women STEM administrators that aligns with the ACA multicultural career counseling and development competencies.** These competencies require career counseling professionals to "understand the strengths and limitations of career theory and utilize theories that are appropriate" for Black women and teach their supervisors how to "infuse multicultural/diversity contexts into training and supervision practices" (NCDA, 2009). This recommendation is supported by the "Women of Color in STEM Mini Symposium" was that programs needed to teach others how to provide culturally competent mentoring to women of color in STEM (Ong, 2010). While these findings were focused on women faculty and students in STEM, the suggestions could be expanded to Black women STEM administrators.
3. **Join with Black women administrators at PWIs to create and identify supportive services for themselves and their students that are multi-culturally competent**. These would include helping marginalized students "unlearn" their oppression and teaching privileged students to "challenge" their privilege; participating in advocacy at the institutional level on behalf of themselves and their students; and collaborating with peers

who could serve as support systems for themselves and their students (Ratts, Singh, Nassar-McMillan, Butler, & McCullough, 2015).

4. **Partner with organizations that are focused on diversity in STEM to create professional development support for this unique population that bridges both career fields.** Of the 115 attendees at the "Women of Color in STEM Mini Symposium," 37% were employed in higher education, 35% held a social science or education degree, and 32% were Black women (Ong, 2010). Despite the range of educational backgrounds, most of the program recommendations were focused on increasing the numbers of faculty, industry professionals and students in STEM majors. Although they called for "diversity within the diversity" they were referring to sub-groups of women of color and did not mention extending their program recommendations to Black women STEM program administrators. Other national conferences that are focused on diversity in STEM include the National Society of Black Engineers or the Society of Women of Color in STEM (NSBE, 2016; SSWOC, 2016). Both of these host regional and national conferences and could provide a separate track geared towards Black women STEM administrators to address the unique professional development needs of this population.
5. **Advocate for and with Black women STEM administrators to confront systems that encourage institutional barriers,** like pay inequity, lacking appropriate physical space for their programs, or confronting other institutional barriers to the advancement of Black women administrators, they would be engaging in systems level advocacy that would benefit the administrators and the students (Ratts, Singh, Nassar-McMillan, Butler, & McCullough, 2015).

University President and Provost Offices

Black feminism considers the cultural, personal, and social contexts of Black women that are different from those of White women and Black men who do not experience both racial and gender oppression (Howard-Hamilton, 2003). Malcom (2015) stated that most of the discussion about effective STEM recruiting and retention programming comes from the top down or from university officials who may not fully understand the experiences of Black women administrators, who often provide the programming. If institutions truly want to show their commitment to diversity programming and not appear to be commodifying the women in diversity positions (Collins, 1999), they must focus on interventions that support Black women administrators or staff, as well as faculty and students. Tsui (2010) conducted an in depth qualitative study about successful engineering women and found that they needed the support of a "substantial number" of program staff who they could readily turn to for help and who were "rewarded and recognized for their contributions." Many of the women in this study were women of color who were hired to provide STEM program interventions like the women in my study.

In order to center these voices from the margin, the Black women STEM administrators, there are several recommendations for high level university officials, like the President, Provost, and Vice Presidents for Research and other policy-impacting roles on campus. Based on the experiences of the women in this study related to obtaining more opportunities for career advancement, feeling isolation in their professional roles, and lacking adequate resources to be effective, these recommendations are:

1. **Require all members of the institution to participate in structured, annual diversity training.** Mayhew and Grunwald (2006) found that faculty exposure to diversity related theories and scholarship increased the likelihood that they would develop a diversity advocate identity. Like mandatory sexual harassment training, each member of college campuses should be mandated to participate in diversity and prejudice reduction programs (Figueroa & Hurtado, 2013). The National Coalition Building Institute (NCBI, 2016) has 25 years of experience conducting diversity training programs at campuses nationally and internationally on such topics as prejudice reduction and controversial issues process models. Also, NCBI offers a campus affiliation program that provides ongoing support for institutions to provide an unlimited number of workshops to its' faculty, staff and students on an annual basis (NCBI, 2016). By requiring all members of institutions to participate in a structured, annual diversity training program like the NCBI model, institutions will demonstrate that it values and wants to understand the experience of all members of its' institution.
2. **Provide support and funding for STEM program administrators to receive "Train the Trainer" courses or participate in other career development opportunities**. NCBI also offers "Train the Trainer" programs for those who want to become experts in diversity in higher education. Institutions should provide funding for Black women STEM administrators to take this training class or other similar professional development courses that will enhance their abilities to navigate the PWI environment, be a stronger resource for their students, and provide an opportunity for career advancement as a trained expert in diversity issues in higher education.

3. **Create a formalized, professional development network or employee resource group for Black women STEM administrators**. Patitu and Hinton (2003) summarized research about women of color faculty and administrators in higher education and suggested that institutions build a network of women of color via supporting professional networks on campus. One example is the "Women of Color in the Academy Project" held at the University of Michigan that highlights the contributions of women of color to the academy, advocates for institutional change, and is a support network to increase their retention (Center for the Education of Women, University of Michigan, 2003). Thus, universities can mimic this structure on their campus with a focus on Black women administrators in STEM. University campuses can create a professional development and mentoring network that is specific to Black women administrators in STEM which will address their desire to form supportive sisterhoods on campus with those who do similar work.
4. **Analyze salary data across campus that includes credentials, years of service, and job duties for these women in comparison to men and White women in similar roles.** Figueroa and Hurtado (2013) suggested that universities conduct pay equity studies for faculty and I suggest it be expanded to STEM program administrators like the women in this study. Black women are traditionally underemployed and undercompensated when compared to their White and male counterparts (The White House, 2016). According to the American Association of University Women (2014), Black women earn 64% of every dollar White men earn compared to Asian American women who earn 87% and White women who earn 78%. Espinosa (2011) argued that the potential of lost talent from women of color has broad economic and intellectual implications and that including more

diverse perspectives in STEM programs yields better outcomes for a host of engineering challenges. By ensuring that Black women STEM administrators are compensated fairly, institutions will be recognizing their value and encouraging their full participation in the academic culture.

5. **Ensure that the programs and offices that these women are in, are located in a visible, adequate space that meets the needs of the students and does not reinforce the feelings of marginalization and isolation often experienced by Black women at PWIs.** In a study published by the National Association of Student Personnel Administrators (NASPA), the author listed several implications for practice with Black students including connecting with students in a way that is timely, culturally relevant and appropriate and creating "safe havens" that support students from different backgrounds (Smith, 2014).

Federal Funding Agencies

Collins (1999, 2000) stated that Black women could use their marginalized position to create social justice change through self-empowerment and advocacy. By conducting this study, I want to engage in social justice advocacy by encouraging federal agencies to alter their funding policies in order to empower these women, which in turn could produce better educational outcomes for students from diverse populations. Each year, millions of dollars are spent to provide STEM programming that is aimed at expanding the pipeline of qualified students and future STEM professionals. For example, NSF provides almost $866 million or almost 10% of its' annual budget towards programs that are focused on diversity in STEM (NSF, 2014). While there were some slight gains in STEM degree completion for Hispanic/Latino students and those from other under-represented minority groups, in the past 15 years the number of STEM degrees

completed by Black students has remained flat (NSF, 2014). In order to counter this stagnation, federal funding agencies must re-examine its' policies regarding grant allocation to research projects that include a broadening impacts or STEM diversity section. Based on the feedback from the women in this study regarding the need for them to learn how to navigate multiple environments, seeking support from their supervisors, and needing to connect with other women in similar roles, some of those recommendations include:

1. **Hold grantees more accountable when meeting federal funding agency requirements.** At the "Women of Color in STEM Mini Symposium," they suggested that NSF should withhold portions of a grant if the broader impacts criterion is not met, if that section is weak or does not provide concrete goals and evaluation processes, disallow the re-allocation of monies away from broader impacts programming, and tie future funding to having met STEM program goals in the past (Ong, 2010). I echo this sentiment and would add an annual audit or evaluation process monitored by the STEM program administrator to ensure the broader impact goals are being met.
2. **Mandate diversity training for every person-including faculty- who receives federal funding for any grants including a broadening impacts section.** This training could be part of the annual site visits and should be provided by those who are experts in the field of diversity, social justice, and inclusion and ideally, are members of a marginalized population in STEM. The training courses provided by NCBI are one example of a diversity training curriculum that could be implemented within a federally funded grant program (NCBI, 2016).

The National Science Foundation provides funding for ADVANCE grants that are geared toward increasing the representation of women and girls in STEM majors (NSF, 2016). The goals of the

ADVANCE grants are to develop institutional approaches to address the under representation of women in STEM, develop innovative ways to enhance gender equity, and develop a more diverse STEM workforce. However, most of the ADVANCE funded projects are focused on women faculty or students in STEM, there is almost no specific or direct intervention focused on the recruitment and retention of women, especially Black women STEM program administrators. One of the previously funded ADVANCE programs is the Women in Engineering Leadership Network that provides "transformative leadership skills development," mentoring support for women faculty, and connecting organizations that support women in industry and academia. Other professional development organizations include the Women of Color in STEM Conference and the Society of Women of Color in STEM, who provide a host of mentoring, professional development, regional and national conferences aimed at increasing the numbers of women in STEM but like most initiatives aimed at enhancing STEM diversity, the focus is on students, faculty, and STEM professionals, not program administrators. Based on these organizations that are often funded by federal agencies,

3. **Create a national program like ADVANCE, that is specific for STEM program administrators.** This initiative should provide transformative career and professional development, a formalized mentoring program for older and newer STEM program administrators, and national and regional conferences that connect these women to organizations outside of academia that focus on supporting them.

Recommendations for Future Research

Research has supported Black women's tremendous and positive impact in higher education and the potential to expand their roles (Ovink & Veazey, 2011; Rice & Alfred, 2014). Yet, numerous research studies have highlighted the need for more research into the experiences of Black

women administrators and Black women in STEM at PWIs (Harley, 2008; Henry, 2010; Hinton, 2010; Patitu & Hinton, 2003). This work contributes to the intellectual canon and sheds light on the similarities and differences between the population studied here and similar populations. Based on my findings, there is the potential for additional work on this topic. First, most of the women in this study wanted to connect with the other women in this study to form a "sisterhood" of women in similar roles. Black feminists support the notion of Black women being in relationships with other Black women in order to empower, mentor, and support each other and as a form of survival in predominantly White and male environments. This form of "collectivist mentoring" (Hinton, 2010) could be explored through a future longitudinal study that re-examines the participants in this study. For example, a follow up qualitative study could use focus groups or individual interviews with the same group of women to determine if the women become more acclimated to the STEM and PWI environment. The use of focus groups would allow the women to connect with each other and garner the mentoring and support they are in search of.

There were some additional themes that a few of the women in this study expressed that could lead to future research on this topic. For example, five women discussed how their challenges as Black women administrators in STEM are different than their White women counterparts in similar roles; how White women in similar roles had an easier time connecting to the White men on campus who held positions of power; and how their experiences are different than faculty, including Black women faculty. Lloyd-Jones (2011) stated that Black women administrators have less employment protection, decision making power, and less control over financial resources than other people in academia. Elizabeth supported this when she stated, "it has been very difficult being an Black female who is not in a faculty position" and Ella who said,

"I have talked to one Black woman faculty [who is also a mother] but the rules are different for staff and the opportunities to be with your family are just different."

Future research could explore some of these themes that emerged for a few of the women in this study. For instance, a qualitative phenomenology could examine the experiences of STEM administrators across all racial and gender categories using a Black feminist or critical race theoretical lens by conducting individual interviews with the participants. Those findings could be compared and contrasted to the themes found here, paying attention to support and recognition (especially pay equity), the impact of race and gender on their professional roles, seeking faculty respect and credibility (especially from White and male faculty and upper level administrators), and how they manage other salient identities (like being a parent, spouse, or partner). A mixed methods study could advance the research here by combining individual interviews that focus on the four themes found in this study, with surveys in which the administrator could report their self- efficacy, job satisfaction, and assess their program outcomes. Then, the researcher could identify if themes related to isolation, respect, credibility, support, and recognition are connected to program outcomes for students. It would be poignant to determine if men and women across all racial categories experience the same concerns in predominantly White and male academic environments and how program outcomes are impacted by administrators feeling of support from their institutions.

Conclusion

In Chapter five, I provided a discussion of the research findings and connected that to existing literature about Black women administrators at PWIs and Black women faculty in STEM. Some of the themes I observed in this study, such as managing multiple identities,

navigating multiple environments, and seeking support and recognition were supported by previous research on Black women in academia. Specifically, like in previous work highlighted in the literature review, the women in this study dealt with the double bind of race and gender, felt isolated in their settings, and had limited opportunities for career advancement. However, there were several sub-themes in this study that are unique for Black women administrators in STEM at PWIs or have not been researched with this population yet. For instance, the women in this study were differentiated from research about Black women faculty in STEM in that they felt the need to respond to the current social and political climate in this country as it related to racial and sexual incidents in the media. The women also saw their primary role as advocates or "change agents" on behalf of their students. Another theme that was more apparent with these women than with similar studies about Black women faculty in STEM is the desire for a more comprehensive and clearly defined career path with more opportunities for professional development. Finally, these women felt the need to establish the credibility or need for their role and sought faculty respect. Some of them needed to differentiate their roles as being "more than just an administrator" doing "more than just diversity work" as they had observed other women becoming pigeon holed in similar roles.

Next, I highlighted some limitations of this study regarding the need to provide an operational definition of racism, sexism and grounding each interview with a description of Black feminist thought and determining to what degree each woman agreed with its' core tenets. I also needed to probe some participants regarding some of the incongruent statements they made regarding the level of support they were receiving, even if it was not exhibited in other ways such as physical office space, compensation, or support staff. Next, I described some emerging themes in this study as a pathway for future research into the experiences of Black women

STEM administrators. For example, future work could examine the experiences of all STEM administrators and see how their experiences are similar or different across race and gender. Finally, I provided recommendations for the counseling and student affairs profession, for university President and Provost offices and for federal funding agencies.

Epilogue

As a Black woman STEM administrator at a PWI, this research was important and personal to me. When I entered the PWI setting, I dealt with culture shock and internal conflict for a few years. I felt like my intellectual contributions and educational credentials were not valued in this setting. I did not feel like any of my other identities-Black, woman, wife, mother, daughter, social justice advocate- were respected or valued in this setting. I did not encounter many other women who looked like me or who could tell me how to be successful in this setting. The Black women I did encounter were so entrenched in their positions that it did not seem like there was room for more than one of us to be successful at the same time. Like the women in this study, I dealt with negative stereotypes, isolation in my professional setting, and confusion regarding professional development pathways. My identity as a wife and mother was challenged and questioned and I felt like I was on an "emotional rollercoaster" that was impacting me professionally and personally.

A few years later, I realized that in order to obtain any career growth in STEM diversity work at a PWI, I would need to pursue advanced education which partially led to my decision to pursue a doctoral degree. My pursuit of advanced education was in response to my desire and need to have some access to pay equity with my White and male colleagues, while also trying to

secure additional credibility in my role and respect of faculty. As I got deeper into the dissertation research, I realized that the process was much more personal than I had anticipated.

During the interview and data analysis process, I felt like the women were confirming and validating everything I had experienced in my professional life. At times, their responses felt so personal, vulnerable and honest that I needed to take a break from listening to interviews, and transcribing or coding data. At one point I thought, "I can't listen to this anymore." By going back and hearing older interviews, I observed so much pain, confusion, nuance and hope that it was hard to process it. It was like my prior conflicted emotions were being reflected back at me. By sharing so much of their lived experiences, the women were subconsciously encouraging me to pursue my educational and career dreams, while being an advocate for them and myself. Through this process I have grown tremendously. I now have a solid professional identity that includes being a researcher, advocate, advisor, and counselor for students of color and any other marginalized population on college campuses. I am more confident advocating for myself and my students in ways that lead to empowerment and systemic change. While I still seek professional credibility, I worry much less about who is going to give it to me. I believe that I have developed a professional identity and that my work speaks for itself. Going forward, I anticipate the ways that this research study contributes to scholarship about this often overlooked population and believe that their voices will contribute to future institutional change.

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APPENDIX A

Office of the Vice President for Research
Institutional Review Board
Phone 706-542-3199

APPROVAL OF PROTOCOL

January 4, 2016

Dear Natoya Haskins:

On 1/4/2016, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Voices from the margin: The experiences of Black women administrators in STEM at predominantly
Investigator:	Natoya Haskins
IRB ID:	STUDY00002977
Funding:	None
Grant ID:	None

The IRB approved the protocol from 1/4/2016.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103).

Sincerely,

Dr. Gerald E. Crites, MD, MEd

University of Georgia

Institutional Review Board Chairperson

310 East Campus Rd, Tucker Hall Room 212
Athens, Georgia 30602
An Equal Opportunity/Affirmative Action Institution

APPENDIX B

RECRUITMENT EMAIL

Voices from the Margin: The Experiences of Black women administrators in STEM at Predominantly White Institutions

My name is Tia Jackson-Truitt and I am a doctoral candidate in the Counseling and Student Personnel Services, P-16 program at the University of Georgia. I am conducting a research study, under the direction of Dr. Natoya Haskins, and I aim to understand the experiences of Black women administrators in science, technology, engineering, and mathematics (STEM) at predominantly White institutions (PWIs). Few researchers have examined the unique experiences of Black women administrators in STEM at PWIs and I want to elevate their experiences with this dissertation.

Specifically, I am interested to learn how these Black women administrators navigate a majority White environment while administering programs for students of color in STEM majors, and what impact, if any, their race and gender has on their ability to perform in these roles. I want to center the voices of Black women administrators who have been excluded by much of the existing literature.

Operational Definitions:

- **Students of color** are defined as African American/Black, Hispanic/Latino, American Indian or Alaska Native, and Pacific Islanders or Native Hawaiians (National Science Foundation, 2014).

- **STEM program administration** includes but is not limited to providing research experiences, mentoring, educational and career advising, counseling, and financial support for students in STEM majors.
- **PWI** refers to any institution in which more than 50% of the student body are White students and/or where the majority of the upper level administration and faculty are White.

This study has been approved by the Institutional Review Board (IBR) at the University of Georgia **(Project ID#: 00002977**).

Your contact information was acquired through your university and/or departmental websites. Your demographics were gleaned from the background information listed on your curriculum vitae or photograph.

I would like to invite you to participate in this study. Your participation would help fill in the gaps in the existing literature about Black women administrators in STEM at predominantly White institutions. I am looking for potential participants who meet the following criteria:

- **Identify as Black or African American**
- **Identify as a woman**
- **Currently provide STEM program administration for students of color**
- **Currently employed at a predominantly White institution**

If you agree to participate in this study, you will be asked to do the following:

1.) Complete a brief demographic questionnaire that asks questions about your identity and professional role. This will take approximately 15 minutes to complete.

2.) Collect 1-2 images that describe your experience as a Black woman administrator in STEM at a PWI. Choose an image that represents any part of your professional or

personal identity. These images will be discussed during the interview. This will take approximately 30 minutes to complete.

3.) Participate in one audiotaped interview, via phone or in person, to answer questions related to your experiences as a Black woman administrator in STEM at a PWI. The interviews will be scheduled during the months of January and February 2016, in a mutually agreed upon location and will last up to 60 minutes.

If you agree to volunteer for this study, your participation will be kept confidential and you can withdraw from the study at any time. While the results may be published or distributed, your identity will be protected.

If you would like to participate in this study, please reply to this email at your earliest convenience indicating that you ARE interested and I will send additional documents and proceed with scheduling the interview. In the email please reply with a phone number and the best times to reach you.

If you are not interested in this research opportunity, please send an email stating that you ARE NOT interested and you will not receive any further contact from me.

Thank you for your time,

Tia Jackson-Truitt (Doctoral Candidate), Tjtruitt@uga.edu, OR tia.jackson@coe.gatech.edu

302-670-8413

Dr. Natoya Haskins (Doctoral Advisor), nhaskins@uga.edu, 706-542-0839

APPENDIX C

RECRUITMENT EMAIL-SECOND ATTEMPT

Voices from the Margin: The Experiences of Black women administrators in STEM at Predominantly White Institutions

My name is Tia Jackson-Truitt and I am a doctoral candidate in the Counseling and Student Personnel Services, P-16 program at the University of Georgia. I would like to follow up with you on an earlier request.

I am conducting a research study, under the direction of Dr. Natoya Haskins, and I aim to understand the experiences of Black women administrators in science, technology, engineering, and mathematics (STEM) at predominantly White institutions (PWIs). Few researchers have examined the unique experiences of Black women administrators in STEM at PWIs and I want to elevate their experiences with this dissertation.

Specifically, I am interested to learn how these Black women administrators navigate a majority White environment while administering programs for students of color in STEM majors, and what impact, if any, their race and gender has on their ability to perform in these roles. I want to center the voices of Black women administrators who have been excluded by much of the existing literature.

Operational Definitions:

- **Students of color** are defined as African American/Black, Hispanic/Latino, American Indian or Alaska Native, and Pacific Islanders or Native Hawaiians (National Science Foundation, 2014).

- **STEM program administration** includes but is not limited to providing research experiences, mentoring, educational and career advising, counseling, and financial support for students in STEM majors.
- **PWI** refers to any institution in which more than 50% of the student body are White students and/or where the majority of the upper level administration and faculty are White.

This study has been approved by the Institutional Review Board (IBR) at the University of Georgia **(Project ID#: 00002977**).

Your contact information was acquired through your university and/or departmental websites. Your demographics were gleaned from the background information listed on your curriculum vitae or photograph.

I would like to invite you to participate in this study. Your participation would help fill in the gaps in the existing literature about Black women administrators in STEM at predominantly White institutions. I am looking for potential participants who meet the following criteria:

- **Identify as Black or African American**
- **Identify as a woman**
- **Currently provide STEM program administration for students of color**
- **Currently employed at a predominantly White institution**

If you agree to participate in this study, you will be asked to do the following:

4.) Complete a brief demographic questionnaire that asks questions about your identity and professional role. This will take approximately 15 minutes to complete.

5.) Collect 1-2 images that describe your experience as a Black woman administrator in STEM at a PWI. Choose an image that represents any part of your professional or

personal identity. These images will be discussed during the interview. This will take approximately 30 minutes to complete.

6.) Participate in one audiotaped interview, via phone or in person, to answer questions related to your experiences as a Black woman administrator in STEM at a PWI. The interviews will be scheduled during the months of January and February 2016, in a mutually agreed upon location and will last up to 60 minutes.

If you agree to volunteer for this study, your participation will be kept confidential and you can withdraw from the study at any time. While the results may be published or distributed, your identity will be protected.

If you would like to participate in this study, please reply to this email at your earliest convenience indicating that YOU ARE interested and I will send additional documents and proceed with scheduling the interview. In the email please reply with a phone number and the best times to reach you.

Thank you for your time,

Tia Jackson-Truitt (Doctoral Candidate), Tjtruitt@uga.edu, OR tia.jackson@coe.gatech.edu

302-670-8413

Dr. Natoya Haskins (Doctoral Advisor), nhaskins@uga.edu, 706-542-0839

APPENDIX D

PARTICIPANT DEMOGRAPHIC QUESTIONNAIRE

Voices from the Margin: The Experiences of Black women administrators in STEM at Predominantly White Institutions

I aim to understand and highlight the experiences of Black women administrators in STEM at predominantly White institutions. I want to understand if and how their race and gender influences their delivery of retention programs for students of color in STEM majors. The purpose of this questionnaire is to gather demographic data related to your identity and professional role prior to conducing the interviews. This data will ensure that you meet the eligibility requirements as outlined in the dissertation research study. You may decline to answer any question.

First Name: _____

Please identify a pseudonym: _____

Race/Ethnicity: _____

Gender Identity: _____

Name of institution where you are currently employed:_____

Job Title: _____

Do you provide retention programs to students of color in STEM majors?

_____

If yes, what types of retention programs do you provide?

_____

Number of Years in this role: _____

Thank you!!

Please return this form to Tia Jackson-Truitt at tjtruitt@uga.edu OR

tia.jackson@coe.gatech.edu.

APPENDIX E

PHOTO ELICITATION INSTRUCTIONS

Thank you for your participation in this study!

I am conducting a research study, under the direction of Dr. Natoya Haskins at the University of Georgia, about the experiences of Black women administrators in STEM at predominantly White institutions. I aim to understand the experiences of these Black women administrators with racism and sexism, and how it influences their delivery of programs for students of color in STEM majors at PWIs. Few researchers have examined the unique experiences of Black women administrators in STEM at PWIs and I want to elevate their experiences with this dissertation. I want you to remember that everything we discuss will be kept confidential and that if you would like to end the interview or withdraw your data, you can do so at any time without penalty. I will not use your name, institution name, or other identifying information that would allow someone to identify who you are. If at any time you wish to skip a question, you may do so.

To complete the first portion of your participation:

- Please take 1-2 images of anything that represents your lived experience as a Black woman administrator in STEM at a PWI.
- Choose images that represent any part of your professional or personal identity.
- You may find an image in a magazine or via an online source, but please do not include pictures of other people.
- You can use your camera phone or a Google search and send these images directly to me via email before our scheduled interview.
- If you do not want to send them to me via email, please contact me and we will discuss alternative methods.

- This images will be discussed during the interview.

Please contact me with any questions at 302-670-8413 or tjtruitt@uga.edu OR tia.jackson@coe.gatech.edu.

APPENDIX F

CONTACT SUMMARY SHEET

Interviewer: _____ **Interviewee Pseudonym: _____**

Contact Date: _____ **Today's Date: _____**

1. **What were the main issues of themes that stuck out to you for this contact?**

2. **What discrepancies, if any, did you note in the interviewee's response?**

3. **Did anything else stick out to you as salient, interesting, or important in this contact?**

4. **How does this compare to other data collections?**

APPENDIX G

UNIVERSITY OF GEORGIA

INFORMED CONSENT FORM

Voices from the Margin: The Experiences of Black Women Administrators in STEM at predominantly White institutions

Dear Potential Participant:

Researcher's Statement

I am a doctoral candidate in the Counseling and Student Personnel Services, P-16 program in the Department of Counseling and Human Development Services at the University of Georgia. I would like to invite you to participate in a research study titled: *"Voices from the Margin: The experiences of Black women administrators in STEM at predominantly White institutions."* This study has been approved by the Institutional Review Board (IBR) at the University of Georgia **(Project ID#: 00002977**).

This form is designed to provide you with important information about the research study so that you can decide whether you want to participate or not. Please take the time to read this form in its' entirety and ask me any questions if anything is not clear or if you need clarification. After reading this form and having your questions answered, you can decide if you would like to participate. This process is called "informed consent." You will receive a hard copy of this form before we begin the interview.

Principal Investigator: Dr. Natoya Haskins

Assistant Professor, Department of Counseling and Human Development

nhaskins@uga.edu, 706-542-0839

Purpose of the Study

The purpose of this qualitative study is to understand the experiences of Black women administrators who provide STEM programs for students of color at predominantly White institutions. I aim to understand the experiences of these Black women administrators with racism and sexism, and how it influences their delivery of programs for students of color in STEM majors at PWIs. Few researchers have examined the unique experiences of Black women administrators in STEM at PWIs and I want to elevate their experiences with this dissertation.

Your contact information was acquired through your university and/or departmental websites. Your demographics were gleaned from the background information listed on your curriculum vitae or photograph.

I would like to invite you to participate in this study. Your participation would help fill in the gaps in the existing literature about Black women administrators in STEM at predominantly White institutions. I am looking for potential participants who meet the following criteria:

- **Identify as Black or Black**
- **Identify as a female**
- **Currently provide STEM program administration for students of color**
- **Currently employed at a predominantly White institution**

Study Procedures

Your participation will require two points of contact. Specifically, if you agree to participate in this study, you will be asked to do the following:

- Via email, you will be asked to complete and return a brief demographic questionnaire form that asks questions about your identity and professional role, read this informed consent form, and read the photo elicitation instructions. This will take approximately 15 minutes to complete.
- Collect 1-2 images that describe your experience as a Black woman administrator in STEM at a PWI. Choose an image that represents any part of your professional or personal identity. Send these images via email before the interview so they can be discussed during the interview. This will take approximately 30 minutes.
- Participate in one audiotaped interview, via phone or in person to answer questions related to your experiences as a Black woman administrator in STEM at a PWI. The interviews will be scheduled during the months of January and February 2016, in a mutually agreed upon location and will last up to 60 minutes.
    a. The interview will include questions that ask about your experience as an administrator in STEM at a PWI, how your race and gender influence your ability to deliver programs to students of color, any advantages or benefits and challenges you have experienced in this role, and what additional supports or resources would assist you.

Risks and discomforts

While I will make every attempt to minimize any risks to you as a participant, you may experience some discomfort related to discussing any potentially negative or emotional experiences in your professional or personal life.

Specific risks include:

- Psychological risks (e.g., feelings of stress/discomfort, sadness guilt or anxiety, loss of self-esteem, etc.). If you experience any uncomfortable feelings during the interview, you may decline to answer any questions and I will skip to the next question. At any time, you may end the interview and withdraw your consent to participate in the research study. After the interview, I will offer the opportunity to discuss and process your answers in further detail, without being recorded.

Benefits

While there are no known benefits to participation in this study, the possible benefits include:

- The ability to discuss your experiences in your role as a Black woman administrator in STEM at a PWI.
- The findings from this research study may be published, contribute to the existing scientific knowledge about the experiences of Black women administrators in STEM at PWIs, and/or used by other researchers or funding agencies to guide institutional changes in how STEM program administrators are supported.

Incentives for Participation

There are no incentives, monetary or in-kind, for your participation in this research study.

Audio/Video Recording

In order to ensure that your answers are recorded thoroughly, I will be audio recording the interview using an electronic recording device so I can transcribe the data later. Upon completion of the research study, I will destroy all audio recordings.

In addition, I will collect the electronic images you submit and will use them during the data analysis and publication of this research report. Any images that include identifying information will not be included in the published research report.

All audio recordings and electronic images will be kept on a removable hardware device. The interview notes and any transcribed data will be kept in a locked file cabinet behind a locked office door. While the images may be used in the publication of the dissertation study, the audio recordings will be destroyed at the conclusion of this study.

Privacy/Confidentiality

I will strive to protect your privacy/confidentiality through the duration of the research study. I will not include your name, exact job title, institution, or other identifying information in the publication of this dissertation. You will be asked to select a pseudonym on the demographic questionnaire that will be used as your identifier henceforth. Any information that could be used to identify you directly (i.e. email address, full name, institution, or exact job title) will be excluded from the data analysis process. Any information that could be used to identify you indirectly such as quotations, codes, or themes will be linked to your chosen pseudonym and any possible identifying information will be excluded.

In addition to the audio recordings and electronic images, all emails, forms, interview transcriptions and any other written correspondence between the participants and the researcher will be kept on a removable hardware device or in a paper file that will be kept in a locked file cabinet behind a locked office door.

I acknowledge that internet communication is not completely secure and will employ confidentiality procedures as much as possible. For example, I will communicate from an

institutional email account on an internet server that is protected by a firewall. Second, I will limit all electronic communication in order to avoid unnecessary exposure to risk. I will only collect the demographic questionnaire and electronic images via email. I will conduct interview scheduling by making voice phone calls.

My dissertation advisor, Dr. Natoya Haskins, may also review the data during the data analysis process but will be bound to the same privacy/confidentiality procedures as I am. I will not release any identifiable results of this study to anyone other than the individuals working on the project without your written consent unless required by law.

Taking part is voluntary

Your participation in this study is voluntary and you may refuse to participate before the study begins and discontinue at any time, with no penalty or loss of benefits to which you are otherwise entitled. If you decide to stop or withdraw from the study, the information/data collected from or about you up to the point of your withdrawal will be kept as part of the study and may continue to be analyzed.

If you have questions

The main researcher conducting this study is Dr. Natoya Haskins, an Assistant Professor in Counseling and Human Development at the University of Georgia. The co-investigator is Tia Jackson-Truitt, a doctoral candidate at the University of Georgia. If you have questions, you may contact Dr. Natoya Haskins at nhaskins@uga.edu or at 706-542-0839 or Tia Jackson-Truitt at tjtruitt@uga.edu or at 302-670-8413. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) Chairperson at 706-542-3199 or irb@uga.edu.

Research Subject's Consent to Participate in Research:

By completing and returning the demographic questionnaire, you are voluntarily agreeing to take part in this study.

Please keep a copy of this form for your records.

APPENDIX H

SEMI STRUCTURED INTERVIEW PROTOCOL

Thank you for your participation in this study!

My name is Tia Jackson-Truitt and am a doctoral candidate in the Counseling and Student Personnel Services, P-16 program at the University of Georgia and I am conducting a research study, under the direction of Dr. Natoya Haskins. The purpose of this qualitative study is to understand the experiences of Black women administrators who provide STEM programs for students of color at predominantly White institutions. I aim to understand the experiences of these Black women administrators with racism and sexism, and how it influences their delivery of programs for students of color in STEM majors at predominantly White institutions. Few researchers have examined the unique experiences of Black women administrators in STEM at PWIs and I want to elevate their experiences with this dissertation.

Based on my own experiences as a Black woman administrator in STEM and conversations with other Black women in this role, I am interested to learn how we navigate a majority White environment and provide programs for our students, and what impact, if any, our intersecting identities has on our ability to perform in these roles. I want to center the voices of Black women administrators who have been overlooked by much of the existing literature.

I want to you to remember that everything we discuss will be kept confidential and that if you would like to end the interview or withdraw your data, you can do so at any time without penalty. I will not use your name, institution name, or other identifying information that would allow someone to identify who you are. If at any time you wish to skip a question, you may do so.

The interview should last up to 60 minutes and will be recorded so that I can transcribe your comments accurately and completely. We will also discuss the images you took. Before we begin, do you have any questions for me?

1. Research Question: How do Black women administrators in STEM at predominantly White institutions experience intersecting marginalization based on their positions (as administrators), locations (within STEM spaces and predominantly White institutional settings), and identities (as Black women)?
    - What are the advantages and benefits of being a STEM administrator at a PWI?
    - Are there any unique advantages or benefits you experience as a Black woman administrator in STEM at a PWI? Can you describe those highlights?
    - What are the challenges of being a STEM administrator at a PWI?
    - SPECIFIC: Are there any unique challenges you face as a Black woman administrator in STEM at a PWI? Can you describe those challenges?
    - ROLE ON CAMPUS: How does your race and/or gender influence your role as a STEM administrator at a PWI?
    - What is the meaning of your presence in STEM programming for students of color on a predominantly White campus?
    - OUTSIDE OF JOB DESCRIPTION: How do you describe and define your role on this campus for students of color?
    - RESOURCES AND SUPPORTS:

      -Are there any supports or resources that have contributed to your ability to be successful in your role?

-Are there any supports or resources that would improve your ability to be successful in your role?

2. OVERALL:

   As a Black woman administrator in STEM at a PWI (spaces that are both predominantly White and male), what has been your experience?

3. Is there anything else you would like to share?

Photo Elicitation Interview Protocol:

1. Please show me the images you have taken.
2. What aspect of your identity does this image represent?
3. What does this image mean to you as a Black person?
4. What does this image mean to you as a woman?
5. If you could title this image, how would you title it?

Summary Statement: I observed several themes during our time together.

I want to want to summarize them here to determine if I have captured them correctly.

_____.

Have I captured your opinions correctly? Is there anything else you would like to add?

Thank you again for your participation in this study and for adding your voice to the discussion about student of color in STEM and the Black women administrators who often provide the programming.

I want to remind you that you may withdraw from participation in this study at any time per your consent or ascent. If you have any questions about the above study or feel like you need assistance after this study, please do not hesitate to contact me by email at tjtruitt@ uga.edu or phone at 302-670-8413.

APPENDIX I

Sample Entries from Reflexive Journal

Week of August 3, 2015

This research project, which examines the intersecting identities for Black women administrators in STEM, is personal to me because that is my current professional role and because I am attempting to complete my dissertation research while juggling my multiple responsibilities. In a way, this research topic may validate and confirm my own experiences. Yet, trying to complete a dissertation while also working full time, being a wife, mother, daughter, and graduate student feels the opposite of validating, but rather as a burden-although it is a means to a positive end. My personal experience may mirror that of the participants, full of ups and downs, positives and negatives but something that is necessary.

November 2015

My mom was hospitalized recently and has to have heart surgery sooner than later. I continue to edit my first three chapters and am making steady progress so I can defend soon. However, I am feeling mounting pressure to finish this degree in May 2016 so she can be there. My mother has had a series of health crises during this PhD program and I know that it is one of her life goals to see me graduate with a PhD. She is so excited and is already talking about what kind of party we will have ☺.

My research talks a lot about the intersecting oppressions (i.e. racism, sexism, classism, ageism, etc.) that Black women face in academia, in their roles, and in their daily lives. At the same time, pursuing higher education has often been used by Black women to confront and push back against those forms of oppression. Interestingly, I feel like some of the oppressions I aim to

uncover and counter with my advanced degree are showing up during this dissertation process. For example, I have observed White and male students be able to defend their prospectus with much less content than I have, are able to collect data that is much less thorough than what I need to collect for my research, and quickly move from spending months not writing anything at all to defending their prospectus on the same date that I plan to. Many Black women feel that we have to work twice as hard to yield the same results so it is frustrating that I am seeing this same experience play out in my dissertation process in a program that focuses on social justice, access, and equity for oppressed population.

Week of February 21, 2016

After coding all ten interviews, I am putting them into a horizontalization chart, adding a tab for incongruent statements as well as a tab for salient quotes. I coded the remaining seven interviews this week and need to return to chapter three to make sure I am compliant with the data analysis process I have selected. I also got feedback from two of peer debriefers and it seems like I am on the right track.

Also this week, I attended a conference sponsored by the National Science Foundation, one of the federal agencies that sponsors many of the programs I oversee in my professional role and who provide millions of dollars towards STEM retention programs. During one of the panels, a Black woman administrator came to the podium and asked, “I keep hearing about all the support for students but what about us? The program directors who have to deal with all of these issues day in and day out for decades, what about support for us to prevent burnout?” My ears perked up and ironically, a panelist mentioned my dissertation and motioned for me to approach the bench. I gave a brief overview of my study and some of the preliminary findings and afterwards,

I was approached by almost a dozen people who thanked me for my topic, offered to be participants and who asked me what I was doing next with the research. They suggested I get published immediately, that I do a webinar for NSF, and that I travel and present at conferences. I was overwhelmed, I felt affirmed and mostly motivated to complete this study so that I can do something meaningful with the results.

For the first time, the ways that I can use research for social justice change became apparent to me. Now, I can fully see how my new professional identity as a scholar-researcher-activist can combine with being an advocate-advisor-counselor for my students. I can't wait to see how I combine these two worlds and roles.

APPENDIX J

A Priori Coding

CODE	BLACK FEMINIST THOUGHT TENET
Maternal -Towards students -Identity as mothers	Self-definition of their role Intersecting identities
Race is salient over gender	Black women have shared group experiences but a unique standpoint
Issues are different than those of White women administrators in STEM	Black women have shared group experiences but a unique standpoint
Advocacy -For students -Needing advocates themselves	Black women have the right to self-define their roles.
Importance of connection/networks -conference attendance "I get to be myself."	Outsider within status of Black women in academia. Black women have a shared group experience.
Feeling excluded	Outsider within status of Black women in academia.

Identifying -Students feel comfortable with Black women administrators -"Keeping it real"	Intersecting identities
Isolation -Being the "only one" or "lonely only" in their own graduate school programs, in past industry positions, or in their current roles.	Outsider within status of Black women in academia.
Visibility and recognition	Black women have the right to self-value their roles and contributions.
Credibility in role "needing to prove a point"	Outsider within
Mentoring -Importance of receiving mentoring (from other Black women administrators, faculty, White male allies, etc.) -Importance of mentoring students of color -needing mentors who do the work or who can guide their careers	Black women have shared group experiences but a unique standpoint.

Reluctance "I don't know what it is" -re: their own identity as an African American woman "Maybe it is just because I am who I am" -re: don't know if their experiences are because they are women or because they are Black (can't separate the two) -re: wanting to claim sexism or racism "I can't really prove it."	Black women and their multiple identities experience interlocking systems of oppression that are inextricably linked.
Navigating environments -In STEM -at PWIs	Outsider within status of Black women in academia.
Importance of or need for support -from academic dept or units -financial resources -from faculty -from White males, esp. those who are "very tenured." -creative control over job function	Outsider within status of Black women in academia.

Other Identities -religion -race -class -gender -mother -wives	Black women and their multiple identities experience interlocking systems of oppression that are inextricably linked.
Career advancement -vague opportunities -unknown pathways -different for men and White women	Outsider within status of Black women in academia.
Current climate in U.S. (i.e. racial, political, gender based tensions)	Black women and their multiple identities experience interlocking systems of oppression that are inextricably linked.

APPENDIX K

TINA INTERVIEW TRANSCRIPT 1-20-2016 #003

After reading informed consent and interview introduction script.

T Okay. So the overarching question I want to understand is how do African American administrators in STEM at predominantly White institutions experience intersecting marginalizations based on their positions as administrators, their location with a STEM space and a PWI space and through their identities as an African American woman? The first few questions are about your position and the first question is about your educational and career journey. What has brought you to this role?

I Well, um my educational journey, I have always loved education, teaching and working with students so what brought me to this position is my interest in being more hands on with the todays youth and giving back. African American students and trying to help them succeed and get to the next level. Help them get established with a career path, help them set goals for themselves and stay focused so they can reach those goals especially in the areas of STEM.

T Okay tell me about where you went to school and what types of positions you have had.

I I went to undergrad at a PWI and grad at single gender PWIs. After graduating, I worked in an elementary school for about 3 ½ years with teachers and parents. From there, I worked for the Dept of Ed with parent engagement and training, a lot of parent advocacy. From there, I am where I work now being more hands on with students again, and navigating a program that is designed to introduce high school students to STEM and help them get familiar with a college

campus and also during the summer, I help co-facilitate an undergraduate research program for STEM majors, at a PWI. I have been in this current role for 2.5 years.

T For your degrees are they in STEM or social sciences?

I it was a general public institution. My major was social science with a minor in education and my master's degree is in education.

T Okay cool that gives me a background on how you got to where you are today. So the next question is in general, what are the advantages and benefits of being a STEM administrator at a PWI?

I I think that I have a much larger emphasis on young people which is definitely what my goal was. I wanted to be more hands on and I definitely feel like this position lets me work closely with young people and develop the soft skills that they need. I am not a scientist but I can help aid them=, you know in areas that I am strong in to help them get where they are going. So I think it is a huge benefit to me to be in this positon because I don't know how much more hands on I could be if I were not.

T Sure. Now when you think about your identity as an African American woman, are there are unique advantages you experience in your current role?

I Well, I think that I can identify a lot with my audience. They are all African American, even though they are all young men and young women, as a parent I now feel like I have a maternal instinct that I didn't have probably. I have it a little more now and I think it helps me to stay a little bit more in touch with reality and what their struggles are. As a woman I am a little more sensitive to those needs and some things that are unspoken.

T That's good. Okay. Okay. Now, the next question is. We have talked about the advantages of your role so in general, what are some of the challenges of your current role?

I Well, I think one of the challenges is sometimes I feel certain people water down the importance of my role and where you know I often think about how things would go if my position didn't exist or if I wasn't in my position and I think about how different things would be but I don't think that others think about it that way. Sometimes, I think I am overlooked or I am not acknowledged as much because I don't have a doctor in front of my name but I feel like my job is very critical to the success of our students and my role and what I do for our students is very critical. Also but I just think being that this is the university setting that it is, that you know there are a lot more instances you know the professors, in which they definitely do a lot to help run things and help things be where they are but that is that person who is on the ground doing the grunt of the work and making sure everything is going like it should and I feel like that person sometimes, isn't always thought about or people forget about the role they play in things. That is the challenge that I would say.

T Yes, girl that is real. So those are general challenges. Specifically, as a Black woman, do you feel like you have unique challenges in your role?

I yes definitely, I think so. I think that when I am in meetings when I you know talk with administrators I feel like there is a level of respect that I don't necessarily get off the cuff, I think that eventually it is given to me but it is not something that I receive immediately. I am often looked at because I am young or because I am African American as the help-someone less important so that definitely presents a challenge when you are trying to work towards getting stuff done.

T Mm. That is powerful Okay. So let's talk about, your role on that campus. How do you feel like your race and or your gender influence your role?

I I think it largely influences my role. I honestly don't think that someone who is not from my background could be as successful in this role. I think it is so important because it is focused towards diversity and outreach and helping the African American community, it has to be a person who can relate. Now, I could be wrong and there could be someone else who could do the job but I strongly think that it would have to be someone who is relatable in this position.

T Umm, yeah. So when you think about the importance of you being there in your role serving primarily African American students. What do you think it means for them to see you in your role?

I For the students, I think they give me a level of respect in my role that nobody else does. The students acknowledge my importance. They know it is important for them to follow the rules and take things seriously so I don't think there are any issues there.

T Okay. Now let's talk about being a Black woman at a PWI and in a STEM space, both of which are predominantly White male spaces. As an AAWA in STEM at a PWI, what has been your experience?

I Okay. I definitely feel that there are a lot of politics that go on um, and it is taking me a little longer to realize that, and um maybe it would have but I realize that sometimes it is just who you are and I could be right on an issue, I could have done everything right but you know, based on the politics of the situation, who knows who, who is who, or who is married to who or whatever- I can definitely be in the wrong even if I'm not in the wrong and that's not a good feeling but it's one of those things that….I have to be very careful, I have to choose battles. I have to choose

what I complain about, some things I just have to deal with…I won't be able to change it…(call disconnected).

T I lost you at the end. I'm sorry and I knew you were on a role. So what were you saying…

I I was saying, so that helped me to pick and choose what I will address-what's major-what I can get around, what issues I can deal with on my own and what can I live with? Is this really life or death, is it really worth the fight or can I keep moving and make do without? But you know what it does is, sometimes, it makes for an uncomfortable work environment. When you feel that you don't have support when things go wrong and you just have to figure it out and patch things up and find loopholes to get around things. That can kind of make it unpleasant but overall, I'm happy.

T Okay. Okay. That's honest. Okay, so lets see, outside of your actual job description, how would you describe and define your role on your campus?

I I would say that my role is a support position that allows for hmmmm, um, allows for diversity initiatives to be met. Yeah that's what I would say. I am definitely a part of the whole diversity initiatives effort. This school is aware of the need for this type of position, they are trying to make it more important on the campus.

T When you think about your role and the diversity initiatives you contribute to, are there any supports or resources that have helped you be successful in your role?

I Not as many as I would like honestly. There needs to be some type of brown bag session or discussion forums for people in my type of position because I don't think there is an opportunity for us to really talk about the issues that we have and the challenges because I am pretty sure I'm

not the only person but I don't get to talk to others to hear how they have dealt with the different roles or how they have used the problems that I am probably experiencing. That would help me a great deal whereas someone else who has been doing it 15 years has mastered the challenges that I have and I would be able to learn from that person and maneuver a little better rather than trying to figure it all out by myself.

T That's good. That was my second question. What resources do you wish you had? Are there other things you wish you had to be more successful in your role?

I Really, probably just a little more free will to do and make decisions because I currently have two bosses and one of them I see eye to eye with and the other boss is a little off the main beaten path which may be a cultural reason for that but it would be nice to have a little bit more control and ability to make decisions on behalf of the students for the greater good but I get pushback a lot of times for budgetary reasons and someone not getting it or understanding the importance of the idea. And to me that is unfair when you say no just because you don't get it,. You know? Not necessarily because it is bad or wrong but because you don't understand the purpose.

T So creative control, ability to make decisions and the cultural differences between you and your supervisor, it sounds like are the issues?

I Umhm.

T So before we talk about the photos, is there anything else that you want to share about your experience and your role at a PWI?

I Just that honestly, I think that you know, its diverse enough for it to not feel like I'm by myself but its not saturated enough to not feel somewhat isolated at times. Like I feel like I've been 2.5

years and I still don't have a repertoire of people I can go to and say. I know these people, I know these students. And some of that could be my fault or the limitations of my position because I am part time. I don't feel like I know as many people or have as many campus contacts as I probably should have. I don't know if that has anything to do with it being PWI or my personal limitations.

T Okay, let's talk about the photos. The first one looks like a tornado and the second one looks like a butterfly in a garden. Before we do that, what other identities resonate with you besides your identity as an African American woman?

I I'm a sister, mother, and I am a friend. I'm a wife and I'm an educator. I guess that's partially who I identify myself as.

T When we look at these pictures, which aspect of your identity do these pictures represent the most?

I as an educator, oh well yeah I was thinking of it from the position of my job, When I look at the pictures as far as how I feel in my role.

T Okay so #1 is the tornado image. Describe it to me and how it relates to your role?

I Sometimes I feel like my job is a whirlwind. Especially when I'm hosting events or getting ready for anything major like applications opening, the review process, and the selection process. Peak season during the summer, we have new groups coming in and all this stuff going on. It's like a whirlwind, so much stuff is going on. But then once everything calms down-I'm in the middle when it's all going on-it gets a little better. It's not bad, it's just a little chaotic in the beginning.

T And then the second one, describe how that relates to your role.

I the second one is more how things are after the dust settles. After I go through getting all this stuff done and getting everybody situated. The butterfly by itself means I am by myself, I am floating around, and just kind of in this place, in this space. And it is peaceful, it's just…for the most part it is peaceful. I'm not unhappy, I am happy in my role. That picture signifies me being a happy little butterfly in my role. (Laughing).

T So as a Black woman, as an African American, or as both, how do these images connect to those identities?

I How do I translate it to those images?

T Uh-huh.

I Well being a Black woman is definitely is a struggle and you know every day life for us is a whirlwind in society and we are just always sin the eye of the storm. We have to be self-aware, we have to always be aware of our surroundings, we have to think outside of ourselves and you know we have to um, there are just so many barriers that we have to overcome and it's just a struggle and it's not, it's getting better but it's not over. There is always on ongoing whirlwind in my opinion to be heard, to be respected, to be treated fairly, everything, it is just always a struggle.

T And the butterfly image, does that connect to your identity as a Black woman at all?

I Well Yes, in the way, I feel like my inner peace, me knowing who I am. It doesn't matter so much what is going on outside, as long as I take care of myself inside. That second image can signify what is going on internally, my internal peace within me.

T I think that is good. How do you take care of yourself?

I I am a very spiritual person, I do a lot of Bible reading and praying, I go to service and I go out and I talk to other people about the Bible. Which always helps take yourself away from your own issues when you focus on others. So I do a lot of community service. I spend a lot of time with my family, my family is very important to me and that makes me happy. I try to do a lot of what makes me happy and you know I am in the process of reevaluating what those things are. It's not easy to identity. It seems like with every chapter in your life those things change as far as what makes you happy, what is important and so forth so I feel like I am going through another transition right now.

T Okay. If you could title these images or your overall experience as a Black woman doing STEM administration at a PWI, what would your title be?

I mum, well, (long pause). That's a good question, um, maybe I would say Equality In work-like a work in progress. Um yeah, something like that.

T That's good. Okay **(reading interview closing script).**