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Promised Land: Reimagining Historically Black Colleges and Universities as Sites of Black Reproductive Justice

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Promised Land: Reimagining Historically Black Colleges and Universities as Sites of Black Reproductive Justice

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Education

by

Brandi Asunali Desjolais

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ABSTRACT OF THE DISSERTATION

Promised Land: Reimagining Historically Black Colleges and Universities as Sites of Black Reproductive Justice

by

Brandi Asunali Desjolais

Doctor of Education

University of California, Los Angeles, 2021

Professor Cecília Rios Aguilar, Co-Chair

Professor Kristen Rohanna, Co-Chair

The purpose of this study was to examine the challenges that Black women collegians face in regard to their reproductive health and their recommendations for how Historically Black Colleges and Universities ("HBCUs") can support their reproductive health needs. Through a Sister Circle focus group and a survey, this exploratory, transformative, and sequential mixed methods study centered the experiences, perceptions, and perspectives of 19 Black women students in the health sciences as they navigate both the health system and the academy while attempting to preserve and promote their reproductive health. This study found that Black women students have an intersectional experience that impacts their ability to support their reproductive health, with challenges driven primarily by a lack of access to quality healthcare within the health system and on campus. The Black women collegians in this study have a vision of reproductive justice that includes reclaiming their reproductive rights and autonomy, and a comprehensive understanding

of the health and environmental factors they and their families need to thrive. To address barriers, I found that Black women students harness an array of community cultural wealth assets, particularly linguistic, navigational and resistance capital. If implemented, their recommendations for institutional support would limit the need to consistently draw upon and deplete these forms of capital. Black woman students prioritized access to transparent information, comprehensive health care including reproductive health services on campus, mental health resources, health insurance, DEI policies, and support around safety and sexual assault as most important to supporting their reproductive health. They also recommended that HBCUs have ideological and tangible supports for pregnant and parenting students. The findings are discussed through the theoretical frameworks of Black Feminist Thought and Critical Race Theory. Implications of the findings and recommendations are discussed for the field of higher education in general and HBCUs in particular.

The dissertation of Brandi Asunali Desjolais is approved.

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University of California, Los Angeles

2021

DEDICATION

To my mothers, Cheryl and Tiny who saw me before I saw myself and helped me become who I am with unwavering support and care. My first loves.

To Benjamin and Gabriel who helped me realize my own vision of celebrated black motherhood and buoy me with joy after joy after joy.
Thoughts of you helped me power through.

To the multitudes of Black women that came before and will come after, and often work in disheartening environments to secure reproductive justice for Black women across the diaspora with little opportunity to fully exercise their own - I see you, I hear you, I feel you, I am you.
This is for us.

the ancestors say that it is not for naught
for we shall ascend against the wind
may we prosper and multiply
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To the site and participants of this study, thank you for believing in this inquiry and welcoming me as one of your own.

And to my family, I could not have done this without you. I am because you are.

VITA

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CHAPTER ONE: THE PROBLEM

Overview

The death of a mother or infant, no matter the cause, is a deeply personal tragedy that has a lasting effect on impacted families and communities. Due to the egregious disparities in birth outcomes that persist across the nation, Black women and their families bear the brunt of infant and maternal deaths. Institutions of Higher Education ("IHEs") serve as learning and working environments for a growing number of Black women students, employees, and faculty; educators of the health workforce tasked with supporting reproductive health; and field builders as creators and disseminators of reproductive health research and information. Despite this multi-layered role that makes IHEs uniquely positioned to support Black reproductive health, there is limited research on the ways IHEs can do this effectively and in alignment to the principles and vision of Black reproductive justice. Using a conceptual framework grounded in Black Feminist Thought and Critical Race Theory, this study will explore the reproductive health challenges of Black women collegians ("BWCs") and their perspectives on how IHEs, and Historically Black Colleges and Universities ("HBCUs") in particular, can become sites of Black reproductive justice.

Background of the Problem

Birth Disparities in Reproductive Health

In California and other states across the United States community stakeholders, health practitioners and policymakers are seeking interventions that can help address long established disparities in Black infant and maternal mortality. Infant mortality is considered a key global indicator of population health and general well-being (Smith et al., 2018). While California's

infant mortality rate is better than the national average, Black infants are two times more likely to die than babies of other races. In Los Angeles County, Black infants are two to three times more likely to die and Black mothers are four to five times more likely to die following childbirth than infants and mothers of other races (Los Angeles County Health Agency Center for Health Equity [CHE], 2019), primarily from complications resulting from preterm birth and hypertension, respectively.

While these disparities have existed since the nation's founding, only recently have health and early childhood systems begun to accurately identify maternal adversity and toxic stress caused by racism as a root cause (Almeida et al., 2018; Grimm & Cornish, 2018; Prather et al., 2018; Schmeer & Tarrence, 2018). On a national level, racism is being acknowledged as a public health issue. Living, going to school and working in racialized environments creates a toxic, chronic stress response within the body. Weathering caused by toxic stress erodes mental and physical health, leading to poor health outcomes including preterm birth and/or maternal and infant death (Geronimus, 1992; Love et al., 2010). Poor health outcomes caused by weathering are exacerbated as Black women seek healthcare and experience implicit and explicit bias from their providers. Studies document the barriers implicit and explicit bias can present to receiving equitable and quality care, sometimes with life threatening effects (Bryant et al., 2010). Disparate preterm birth outcomes can also negatively impact the future educational outcomes of Black infants, as preterm infants are more likely to have cognitive deficits including problems with mental processes such as attention, memory and problem solving (Stewart & Graham, 2010).

Black Women Collegians and Reproductive Health

While more education improves birth outcomes for women of other races, it is not a protective factor for Black women. In fact, Black women with college degrees have worse birth outcomes than White women who have not completed high school (Los Angeles County Department of Public Health, 2020). While disparities impact women across economic and educational strata, most interventions are not designed with college students or graduates in mind, and programs and services with requirements such as case management can be difficult to access. These students often instead turn to their universities for support.

Black women are a growing population on college campuses and spend a significant portion of their reproductive lives impacted by their respective academic institutions. The college enrollment rate for 18–24 year-old Black women was 41% in 2018, up from 35% in 2000. At HBCUs, female enrollment has been higher than male enrollment each year since 1976, and reached 62% in 2018 (National Center for Education Statistics [NCES], 2019). While experiencing greater rates of enrollment and degree attainment, these students face challenges and oppressions at the intersections of race, gender and class and often have their voices and experiences made invisible in the larger research narrative of college students in general, women, and Black men (Commodore et al., 2018).

In *Black Women College Students: A Guide to Student Success in Higher Education*, which is a book in a series on diverse college students, Commodore et al. (2018) provide a nuanced perspective of the state of this student population. The challenges experienced by Black women students include socially constructed homogeneity, isolation on campus, lack of quality mentoring, psychological stressors, disproportionate enrollment at two-year and for-profit institutions, and financing their education. While reproductive health is not explicitly mentioned,

each of these challenges can exacerbate, or be exacerbated by concurrent issues with a student's reproductive health.

With a recent elevation of Black infant and maternal mortality as an issue on a national scale, anecdotes that provide a deeper understanding of the lived experience of these students have begun to bubble up in the media with increasing frequency. In "Black Motherhood in the Academe", Trenita B. Childers (2018) described her experience as she navigated the academy as a first-generation PhD student that chose to start her family during her graduate school program. Childers described comments from peers and faculty that communicated an expectation of motherhood and her academic careers being separate. One professor said, "This is your first child? Maybe you should drop this class. Statistics is a challenging course, and when I had my first child…" (Childers, 2018, p.1). Childers also called out her institution's maternity leave policy as being difficult to access as a graduate student trying to navigate consecutive and sequential course schedules without having to delay her education for a full year (Childers, 2018).

More recently, the Hechinger Report featured the story of Nicole Lynn Lewis in "Why Black student parents are the epicenter of the student debt crisis – and what we can do about it". Lewis struggled to find a job while getting her bachelor's degree and parenting her 4-year-old son. Overwhelmed with concerns about childcare, rent, car payments and tuition, Lewis ended up taking on $30,000 in student debt. In the article Lewis notes that Black parents hold more student debt than parents or non-parent of any other race. To help combat what Lewis calls "the racist policies baked into our postsecondary system" she founded Generation Hope, a non-profit with the mission of helping student parents complete college while preparing their children for

kindergarten (Lewis, 2020, p.1). A big focus is navigating financial aid and helping participants graduate debt free.

Just six months later, the tragic story of Amber Isaac was shared by New York news outlet *The City*. Isaac was a pregnant graduate student who had previously expressed her worry about the disparate rates of Black maternal deaths to her partner and had been struggling for two trimesters to get adequate care from her medical providers at a university hospital. When she was finally able to get an appointment, she was admitted to the hospital immediately. Suffering from HELLP Syndrome, which is a group of serious pregnancy complications, Isaac ultimately bled out during an emergency c-section (Olumhense, 2020).

These stories illustrate the myriad challenges and barriers Black women collegians face as they attempt to navigate academic settings while parenting and promoting their reproductive health.

Existing Interventions and Gaps in the Research

Reproductive Justice as Educational Equity

Access to reproductive health support is a strategy for increasing equity in education. While higher income students can seek reproductive care elsewhere, many low-income students depend on the resources that are available to them on campus. When institutions limit access to contraception or comprehensive reproductive care, students from marginalized groups then experience disparate rates of stress and poor reproductive health outcomes, which can impact their ability to succeed in school.

The Role of Institutions of Higher Education

Many institutions of higher education have an ideal of social justice that they seek to embody. Authentic partnership with the community in support of social justice issues such as reproductive health can bolster the image of the university as a social justice leader which can have positive ripple effects across various university engagements. As employers, educators, medical providers and policy influencers, IHEs are uniquely positioned to play a multi-faceted role in addressing disparities in Black infant and maternal health. Institutions of Higher Education have a significant influence over the daily experiences and reproductive health of large numbers of Black women employees, faculty, and students. Higher education has increasingly embraced a more holistic approach to improving student outcomes by supporting students' non-academic needs. Policies that impact Black women's access to health information, insurance, contraception, abortion, leave, childcare, and other factors that can impact a student's level of chronic stress and their ability to have positive birth outcomes while being successful academically vary widely (Institute for Women's Policy Research [IWPR], 2020) and represent another key area where IHEs can play a vital role in supporting Black reproductive health. Further, the medical training provided by IHEs often not only fails to adequately address provider bias, it can promote stereotypes that are then operationalized in the medical setting. Research demonstrates that IHEs that provide medical training can have a positive impact on medical provider perceptions that impact the care that Black patients receive (Hoffman et al., 2016), illustrating another area where higher education can create positive change in Black reproductive health. HBCUs represent a type of IHE that have consistently stood in the gap to produce diverse and culturally competent medical providers (Gasman et al., 2017).

Despite the opportunity for IHEs to play a transformative role in the reproductive health of their Black women students and women students in general, and a greater understanding of the impact reproductive health can have on equity, on-campus reproductive health efforts continue to have a limited focus on the prevention of pregnancy and sexually transmitted diseases. A 2020 brief from the Institute of Women's Policy Research titled "Improving Success in Higher Education through Increased Access to Reproductive Health Services" touted the need for higher education to take a "holistic" approach to improving student outcomes by addressing non-academic needs including comprehensive reproductive health care. While providing an excellent review on the data showing connections between comprehensive reproductive care and economic outcomes including educational attainment, the brief's policy discussion focused on STI and pregnancy prevention through personal responsibility education centering abstinence and contraception, and access to contraception and abortion services. Only in the last two sentences of the brief were support for pregnant or parenting students mentioned, without specific recommendations (IWPR, 2020). Further, at predominantly white institutions ("PWIs") and even at HBCUs, reproductive health efforts are not designed for Black women students, creating a disconnect between actual needs and supports.

This research will fill gaps in the literature regarding the experiences and perceptions of Black women collegians regarding their reproductive health. The findings from intersectional perspectives in this study will help inform a framework that academic institutions can use to engage in efforts to support Black reproductive health through policies, practices, and supports that impact their Black students, employees, and faculty as well as the education and training they provide to students in the health sciences. It will also add to very limited research on the experience of Black women collegians at HBCUs. This scholarly contribution can support

practical applications in higher education administration; the design and implementation of public health interventions; and partnerships between IHEs, HBCUs, and communities working to improve Black reproductive health.

Research Questions

This study addresses the following research questions:

1. What challenges do Black women collegians face regarding their reproductive health?
2. According to Black women collegians, how can HBCUs better support their reproductive health?

Research Design and Methods

This study used a mixed methods design to address the research questions in this study (Creswell, 2014). Because I sought to understand both perceptions and processes, I collected qualitative data in focus groups. These focus groups supported the development of a survey through which I collected additional qualitative and quantitative data. The development of protocols and instruments and the analysis of data were grounded in the theoretical frameworks of Black Feminist Thought and Critical Race Theory. Analysis and presentation of the quantitative and qualitative data were integrated to support a comprehensive understanding of findings related to the research questions.

Significance

While this study will not generalize findings across all IHEs, HBCUs, or for all Black women in the higher education context, results from the study may serve as a framework for colleges and universities attempting to better support the health and academic success of this

growing student population. It will be of particular significance to HBCUs seeking to contribute to the reduction of disparities in Black infant and maternal mortality and better support the reproductive health of their students.

The current social and public health context makes this research timely and potentially of even greater significance for practitioners, college administrators, and policy makers. COVID-19 has exacerbated disparities in public health including the social determinants of health, health outcomes, and the pipeline of diverse medical providers. Simultaneously, social unrest in response to increased awareness of racism and police brutality, and their connections to public health, has generated greater societal attention, engagement, and pressure on institutions to address inequities within their own walls. Results of this study can be useful to help IHEs respond to this critical moment.

CHAPTER TWO: REVIEW OF THE LITERATURE

In California and other states across the U.S. policymakers and practitioners are seeking interventions that can help address disparities in African American infant and maternal mortality. Research shows that these disparities are primarily caused by the weathering effect of the chronic, toxic stress mothers experience as a result of living in a racist society. Despite the unique stressors that Black women in higher education face in terms of their reproductive health, there is no research on the experiences of Black women medical students and how best to support them as they seek to matriculate while having positive birth outcomes. By understanding their experiences and seeking their direct feedback on actions IHEs can take to better support Black reproductive health, the resulting framework will include strategies more likely to be effective in improving experiences and outcomes for Black women collegians and patients. My research seeks to explore the perceptions of Black women in higher education to better understand how IHEs can support the reproductive health of Black women through campus policy, practice, climate, and the training of health professionals.

My literature review first establishes the disparities in black infant and maternal health, their root causes, and the implications for disparities in black child development, kindergarten readiness and other educational outcomes. I then discuss the literature and implications for the role of higher education in supporting and promoting reproductive health. Next, I explore the experiences of Black women in higher education, and HBCUs in particular, with a focus on the need for more research on the intersectional experience of Black women students in the health sciences.

Disparities in Black Infant and Maternal Mortality: Root Causes and Implications for Educational Outcomes

Black Infant and Maternal Mortality

The death of a mother or newborn infant, no matter the cause, is a deeply personal tragedy that has a lasting effect on impacted families and communities. Infant mortality in particular is considered a key global indicator of population health and general well-being (Smith et al., 2018). Despite the United States' position as a world power with access to technological advances in medicine and high spending on healthcare, both the infant and maternal mortality rates are surprisingly high when compared to other developed countries. In 2018, the Centers for Disease Control (CDC) reported a U.S. maternal mortality rate of 17.4 deaths per 1,000 births (CDC, 2019). Compared to other countries on the World Health Organization's (WHO) maternal mortality ranking, the United States would place 55th, right behind Russia and right before Ukraine. If compared to 10 similarly wealthy countries, such as Germany, the United States would rank 10th out of 10 (WHO, 2019).

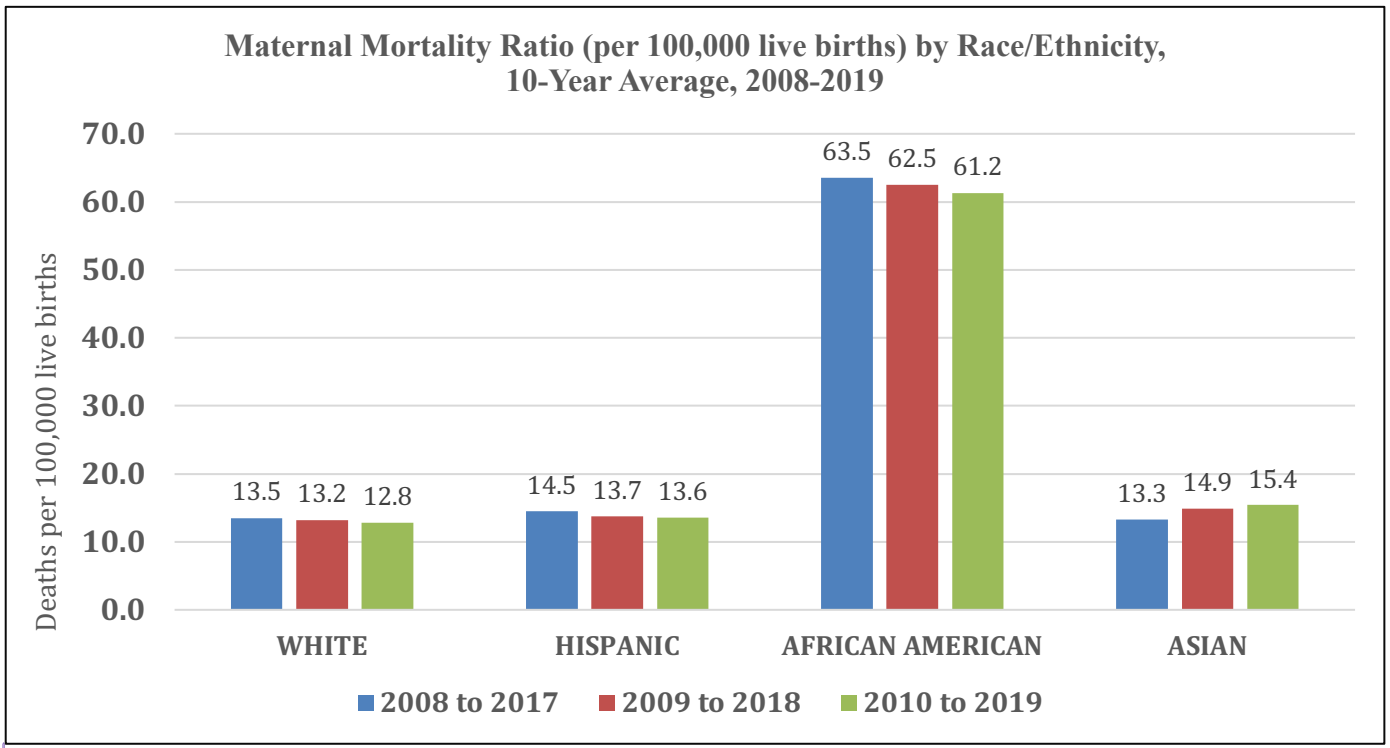
While rates are lower for infant mortality, the United States fares just as poorly when compared to other countries. The infant mortality rate, or "IMR", is calculated as the number of infants who die in a year, divided by the number of infants born alive in that same year, times 1,000. Infant mortality rates vary widely around the world, with high rates usually found in areas with lasting poverty or conflict. For example, Afghanistan has the highest IMR in the world with more than one infant out of every 10 dying in their first year of life. The lowest IMRs are found in countries that are economically and socially stable, such as in Japan, where rates are two deaths for every thousand births (CHE, 2018). The United States' infant mortality rate of 5.3 deaths for every thousand births means that a child born in the U.S. is 76% more likely to die

before their first birthday than infants born in other wealthy countries (Central Intelligence Agency, 2020).

Within the United States, California is frequently cited as an exemplar in infant and maternal health. Its IMR of 4.6 deaths per thousand compares favorably when compared to the United States overall rate of 5.3, and since 2006 California has cut its rates of women dying in childbirth in half (CHE, 2018). However, disaggregating the data by race reveals sharp disparities. Figure 1 below reflects the Los Angeles County maternal mortality ratio (per 100,000 births) as a 10-year average from 2008-2019 disaggregated by race. This data shows Black women are four to five times more likely to die from childbirth than women of other races (Los Angeles County Department of Public Health, 2020).

Figure 1

Maternal Mortality Ratio by Race or Ethnicity



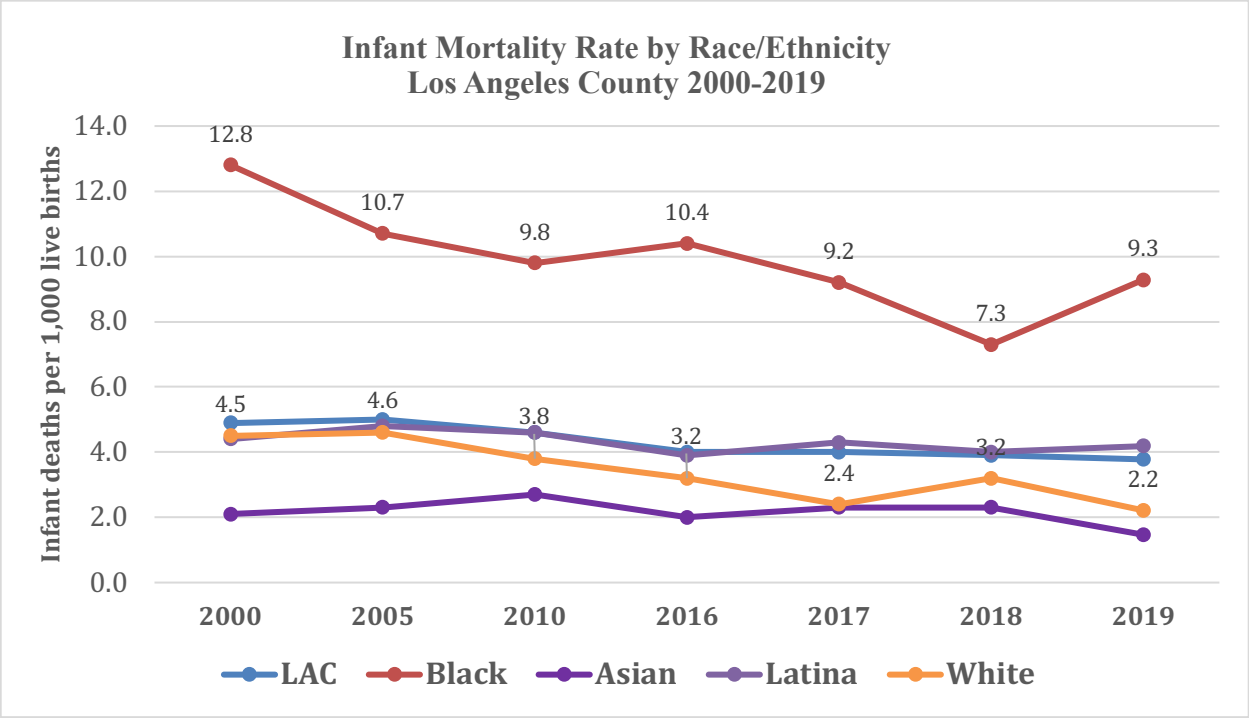
Note: California Department of Public Health, 2008-2019 Birth and Death Files analyzed by the

Los Angeles County Department of Public Health, Maternal, Child and Adolescent Health Programs

Figure 2 is a comparison of IMR from 2000-2019 disaggregated by race (LACDPH, 2020). It reveals that in Los Angeles County, White infants have an IMR of 2.2 per thousand, Asian and Pacific Islander infants have an IMR of 1.7, and Latino infants have an IMR of 4.1. However, the IMR for Black babies is 9.3. This means that a Black newborn is four times likely to die within their first year than a White one. These deaths are most frequently attributed to complications associated with preterm birth and low birth weight.

Figure 2

Infant Mortality Rate by Race or Ethnicity



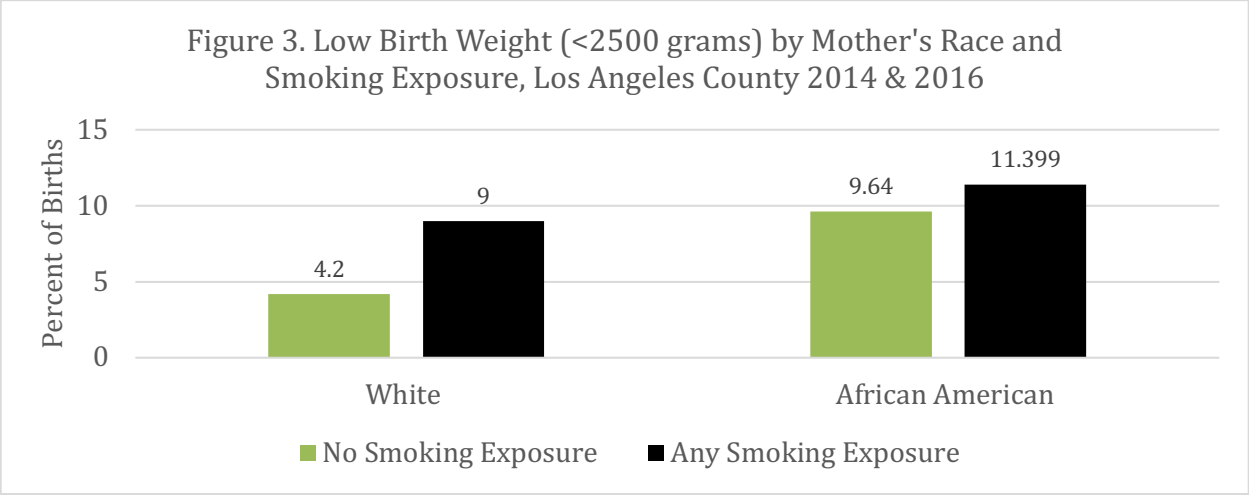
Note: California Department of Public Health, 2000-2016 Birth and Death Statistical Files, 2017 to 2019 data downloaded from the California Integrated Vital Record system analyzed by the Los Angeles County Department of Public Health, Maternal, Child and Adolescent Health Programs

Root Causes of the Birth Disparities

Previous attempts to explain disparities in Black infant and maternal mortality primarily focused on the behaviors of the mother. For example, policymakers and practitioners frequently attributed the gap to smoking, neglecting to seek prenatal care, low socio-economic status, or a lack of education. But a look at the data reveals these perceptions to be inaccurate. Black and White women engage in risky behaviors equally, but the data shows different preferences. For example, White women drink more alcohol than Black women, and Black women are more likely to smoke. But Los Angeles County data shows that Black mothers who do not smoke have worse birth outcomes than White mothers who do. Figure 3 below reflects a comparison between Black and White women of low birth weights based on smoking exposure. The data shows that 9% of white women who smoke had low birth weights, while 9.6% of Black women that did not smoke had infants with low birth weights. Similarly, Black women who had adequate prenatal care had worse outcomes than White women who did not (LACDPH, 2020).

Figure 3

Low Birth Weight by Mother's Race and Smoking Exposure

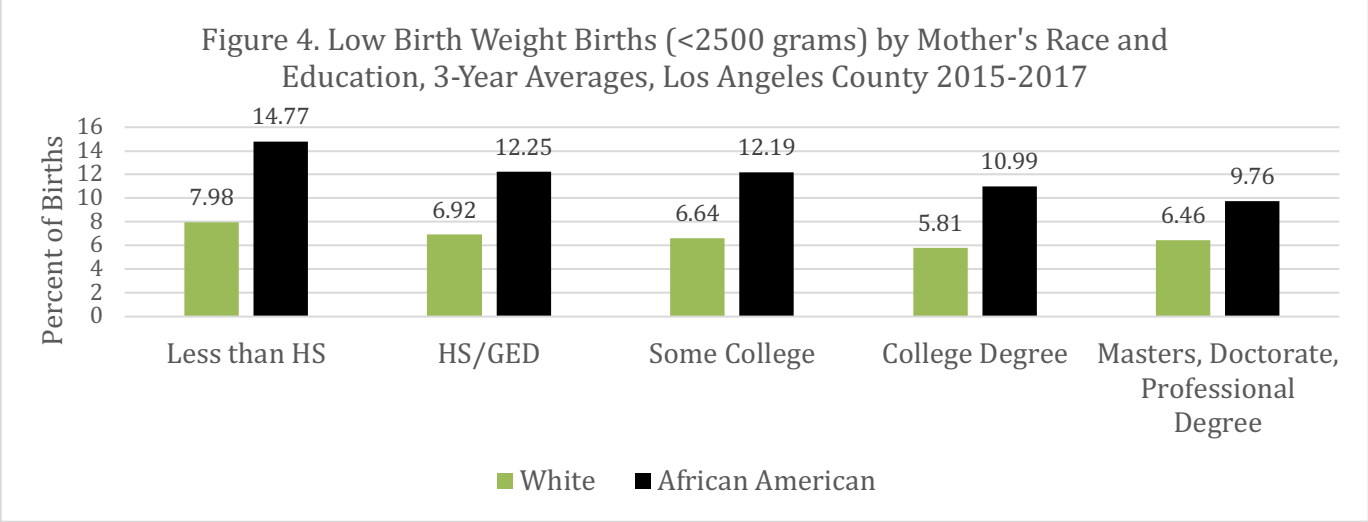


Note: Low birth weight births are defined as weighing less than 2500 grams at birth. Smoking exposure is defined as any smoking in the six months before pregnancy, any smoking during pregnancy, or any exposure to smoking while pregnant. Analysis limited to singleton births. Data not shown for Hispanic, Asian, Native American, Pacific Islander, Other, and Unknown races.

The trend holds true for both socio-economic status and education as factors. It is well established that job security, a safe home, and healthy food contribute to wellbeing, and when looking at Black or White mothers alone, those that are better off financially have healthier babies. But data reveals that in LA County, Black women who have private insurance (which is a proxy for employment) have worse outcomes than White women with public insurance (LACDPH, 2020). A woman's education is also associated with healthier births, but Los Angeles County data reveals that Black mothers have worse birth outcomes than White mothers at every education level. Figure 4 represents Los Angeles County low birth weights by mother's race and educational attainment at the time of delivery (LACDPH, 2020). This 2015-2017 data shows that regardless of education level, White women have better outcomes than Black women. Even more egregious is the revelation that Black women with master's, doctorates, and professional degrees have worse outcomes than White women that have not completed high school (9.8% for Black women vs. 7.9% for White women).

Figure 4

Low Birth Weight by Mother's Race and Education



Note: Low birth weight births are defined as weighing less than 2500 grams at birth. Educational attainment is based on mother's highest level of education at the time of delivery. Three year averages used to account for random annual rate fluctuations. Data for unknown education level not shown. Data not shown for Hispanic, Asian, Native American, Pacific Islander, Other, and Unknown races.

This data illustrates why conventional wisdom about the causes of disparities in birth outcomes are not accurate and cannot explain why variables such as education and behavior do not serve as protective factors for Black women in the same way they are for women of other races. While these disparities have existed since the nation's founding, only recently have health and early childhood systems begun to accurately identify maternal toxic stress and childhood adversity caused by racism as a root cause (Almeida et al., 2018; Bartick & Tomori, 2019; Grimm & Cornish, 2018; Prather et al., 2018; Schmeer & Tarrence, 2018).

Disparities between Black and White populations in the areas of infant health, child development, and kindergarten readiness are well documented (Chaudry et al., 2017) and represent a logical chain of events initiated by the chronic, toxic stress of living in a racist society

and the weathering impact it has on the body and mind (Mays et al., 2007; Pachter & Coll, 2009; Shonkoff et al., 2012). Black individuals and communities have experienced racism since their forced passage to the United States, which launched 400 years of genocide and chattel slavery, and has since evolved though various iterations including the terrorism of the Ku Klux Klan during reconstruction and beyond, Jim Crow laws and sharecropping, red-lining, segregation, and contemporary incarceration and police brutality among many others (Span, 2015).

Unavoidable and consistent interactions with both social and institutional racism as Black people go about their daily lives at school, work, and in their communities creates a flight or fight response in the body characterized by a constant stream of cortisol, norepinephrine, and adrenaline that can cause poor glucose regulation, insulin intolerance, hypertension, cardiovascular disease, stroke, diabetes, asthma, telomere damage, inflammation, and infections (McEwen & McEwen, 2017). It also erodes maternal health, leading to poor birth outcomes, including preterm birth and/or maternal and infant death (Geronimus, 1992; Love et al., 2010). For example, a recent study published in *Science Advances* showed a link between police shootings of unarmed Black people and poor birth outcomes. Harvard sociologist Joscha Legewie analyzed California data of police shootings and birth records from 2007 through 2016. He found that when an unarmed Black person was killed within a kilometer of a Black woman's home in the first two trimesters of pregnancy, she gave birth sooner and her infant's birth weight was significantly lower compared with Black mothers who were not exposed to such events. There was no link between birth outcomes and police killings of Black people who had been carrying a weapon (Legewie, 2019).

Poor health outcomes caused by weathering are exacerbated as Black women seek healthcare and experience implicit bias from their providers. Studies such as the contribution by

Bryant et al. (2010) document the barriers implicit bias can present to receiving equitable care. In their study, the researchers conducted a review of the literature as well as institutional data that revealed disparities in birth outcomes, access to care, and quality of care (Bryant et al., 2010). In addition to the birth disparities discussed earlier in this review, the researchers found disparities in care quality measures such as the cesarean rate, major obstetric laceration rate, hemorrhage rate, and the puerperal infection rate. The researchers concluded that health care policy and quality improvement efforts should aim to ensure an equitable level of obstetrical care to all women, including Black patients.

Implicit bias can have life-threatening impacts for Black women. A recent example is the tragic 2016 experience of Kira Johnson, which has been elevated in the media (Young, 2020). Kira was a healthy, educated Black woman who spoke five languages, had her pilot's license, was an avid skydiver, was a non-smoker, and received timely prenatal care. After giving birth to her second son via a routine cesarean at Cedars-Sinai Medical Center in Los Angeles, her husband who was sitting at her bedside noticed blood in her catheter. He alerted medical staff immediately, who, after conducting an examination, ordered labs and a CT scan. Despite concerning bloodwork and an ultrasound revealing a mass of clotted blood, providers waited to complete the CT scan that was necessary to identify the cause of the bleeding. Hours later, her husband Charles desperately asked a nurse when his wife would be attended to. He was told, "unfortunately, your wife is not a priority right now" (Young, 2020, p.1). Ten hours after her c-section, Kira was wheeled into surgery. The surgeons found 3.5 liters of blood in her abdomen and she coded immediately (Young, 2020). Kira's preventable maternal death was the impetus for HR 1318, the Preventing Maternal Deaths Act of 2018, and AB 464, both of which aim to address implicit bias in maternal health.

Implications for Educational Outcomes

Even when mothers and babies survive delivery, disparities in birth outcomes have significant implications for child development, kindergarten readiness, and future educational attainment. Black infants are born preterm at a rate 50% higher than White infants, and infants that survive are more likely to have cognitive deficits including problems with mental processes such as attention, memory, and problem solving (Stewart & Graham, 2010). Black children are less likely to be screened for developmental delays, and if identified, receive lesser quality care after diagnosis (Hirai et al., 2018). While these issues usually become noticeable in elementary school, gaps are present as early as three years old (Burchinal et al., 2011) and transition into disparities in kindergarten readiness. The achievement gap is a developmental process that unfolds in the years prior to school entry and then is acted on by school experiences (Condron, 2009; Fryer & Levitt, 2004) and can negatively impact future educational attainment.

The difference in educational outcomes between African American and White students, known as the achievement or opportunity gap, has been well documented and shown to last well beyond elementary school. It is compounded by the fact that Black children are two to three times more likely to experience poverty and extreme poverty, and live in areas with higher concentrations of poverty. Research shows that persistent poverty has more detrimental effects on IQ, school achievement, and socioemotional functioning than transitory poverty, with children experiencing both types of poverty generally doing less well than never-poor children. While gaps in kindergarten readiness by socio-economic status end to narrow between White and Hispanic students over the course of kindergarten, the gap actually widens between White and Black students (Hansen et al., 2018). Despite a laser focus on closing the gap from both policymakers and practitioners, the gap has persisted in elementary and high school test scores,

high school graduation rates, and college acceptance rates. Reductions in disparities in Black reproductive and infant health can have positive implications for Black child development and kindergarten readiness, strengthening the foundation for future educational attainment.

The Role of Higher Education in Promoting Reproductive Health

IHEs as Educators of the Health Services Workforce

As employers, educators, medical providers, and policy influencers, Institutions of Higher Education (IHE) are uniquely positioned to play a multi-faceted role in addressing disparities in Black infant and maternal health. A university's primary role is the education and training of professionals, which includes the medical providers, policymakers, and researchers that have a direct impact on supporting the reproductive health of Black women. Physicians emerge from their medical training retaining stereotypes and implicit and explicit biases that negatively impact the care they provide to Black women (Prather et al., 2018). While medical providers self-report biases at the same rate as the general population (Hoffman et al., 2016), their role supporting the health of diverse populations requires that they learn to control their biases and provide the same level of care to all patients. Oftentimes medical training not only fails to adequately address provider bias, it also actually promotes stereotypes that are then operationalized in the medical setting. For example, a 2014 edition of *Nursing: A Concept-Based Approach to Learning* published by Pearson Education included a page on cultural differences in response to pain. The text explained that "Blacks often report a higher pain intensity than other cultures" and "they feel [that] pain and suffering are inevitable" (Pearson Education, 2014). Ethnic stereotypes such as these lead to differences in treatment for Black patients that are well established in the literature and rooted in historical perspectives from slavery. During that time, Black people were prescribed the status of chattel and received inhumane healthcare, with

medical decisions made on their behalf based on factors such as economic considerations or the desire for medical advancements. For example, J. Marion Sims, known as the "Father of Modern Gynecology", discovered many of his obstetric and gynecologic techniques—such as the speculum and a surgical technique to repair fistulas—through the frequent experiments he would perform on the Black women slaves of his friends without anesthesia, because he believed that Black women did not feel pain (Prather et al., 2017).

In a 2016 study (Hoffman et al.), psychologists explored medical provider's beliefs about biological differences between races and how these false assumptions contributed to the systematic under-prescription of pain medication to Black patients. They first asked 121 White Americans without any medical background to assess false statements about how different races responded to pain. Seventy-three percent endorsed at least one myth. Fifty-eight percent believed that Black people had thicker skin, 39% believed that Black people's blood coagulated faster than White people's, and 20% said that Black people's nerve endings were less sensitive than those of White people. The researchers then surveyed 418 medical students and residents on the same false statements. They found that while each year of medical training reduced the amount of false statements that were believed, slightly half of medical students and residents still believed at least one false claim. Further, Hoffman et al. (2016) demonstrated that providers that held these beliefs then assessed the pain of theoretical Black patients as less than those of Whites and provided treatment accordingly.

Hoffman et al.'s (2016) research demonstrates that institutions of higher education that provide medical training can have a positive influence on medical provider perceptions that impact the care that Black patients receive. These institutions have a responsibility to incorporate

strategies to reduce and mitigate the impact of implicit bias as part of their training and are therefore a vital partner in supporting Black reproductive health.

IHEs as a Working and/or Learning Environment for Black Women

Institutions of Higher Education also have a significant influence over the daily experiences and reproductive health of large numbers of Black women students. Higher education has increasingly embraced a more holistic approach to improving student outcomes by supporting students' non-academic needs. Most IHEs must adhere to Title IX, a federal law that prohibits colleges and universities from discriminating against students, postdocs, and employees because they are or were pregnant. It also requires IHEs to provide medically necessary leave, readmit students after medical absences, provide special services on par with those offered to other students with temporary medical conditions, and establish a complaint process for addressing potential violations of Title IX. Beyond this federal mandate, there is great variation among academic policies that impact Black women students' access to: health information, insurance, contraception, abortion, leave, childcare, and other factors that can impact a student's level of chronic stress and their ability to have positive birth outcomes while being successful academically (IWPR, 2020).

Experiences of Black Women in Higher Education and Intersections with Reproductive Health

Black women, like other women in higher education, spend many (and, if they are seeking a medical degree or academic career, often all) of their reproductive years in a culture that is antagonistic to their reproduction and reproductive health. The literature is saturated with the challenging experiences of Black students at the undergraduate level. Applying Critical Race Theory, Solarzano et al. (2000) used focus group data from African American students at three

universities to explore their college experiences in the context of racial climate. Their study revealed that microaggressions, defined as subtle verbal, nonverbal, or visual insults, were frequently directed toward African American students, often automatically or unconsciously. These microaggressions were experienced both in academic and social environments, with both faculty and students as offenders. The cumulative effect of these experiences instilled a sense of self-doubt in students and made them feel drained and isolated.

Bryan Hotchkins' 2017 study of Black women undergraduate students on predominantly White campuses corroborated these experiences. His ethnographic research also described a range of microaggressions leading to feelings of racial battle fatigue, a lack of belonging, and a need to diminish themselves in order to assimilate. Hotchkins establishes these experiences as those in which microaggressions operate as "psycho-pollutants" in the social environment that add to the overall race-related stress for Black women (2017).

At the graduate level the stakes are even higher. Doctoral and professional students must navigate an often-hidden culture that is not designed to accommodate racialized and gendered identities while also combating negative stereotypes in order to secure guidance, mentorship and support, and ultimately emerge as scholars and practitioners. A growing body of literature has documented the challenges Black women face and the various strategies ranging from silence to active resistance that they employ to cope. Patterson-Stephens et al. (2017) interviewed Black women doctoral students who spoke of faculty attempting to counsel them out of the program and discourage them from pursuing various academic opportunities. These students often sought external sources of support and mentorship, such as family, friends, and other Black students in their networks, to help them navigate the academic environment and stay motivated.

Despite these challenges, Black women have increased their doctoral attainment and now receive almost 70% of doctorates conferred to Black students. As doctoral and professional programs seek to diversify their student populations and better support their access, persistence, and success, more research is needed to explore the factors that support and hinder Black women collegians (Rogers et al., 2019).

The intersectional experience of being Black and female in academia is incredibly challenging and becomes more so when pregnancy and parenting is added to the equation. A recent study of doctoral students in the University of California system indicated that about 13% become parents by the time they graduated, but it is unclear how many of these students were Black women (Mason et al., 2013). Most women in graduate school are there during their peak childbearing years and the women in Mason et al.'s study agreed that the years that they were pursuing doctoral degrees were the optimal years to have a child. Currently, 33 is now the average age that women receive a Ph.D., and they typically do not receive tenure before age 39. Medical students have a similar timeline before being able to practice. Very few start their families during this time because of the numerous structural, logistical, and relational barriers the academy creates. Not surprisingly, while there is an increase in women pursuing and obtaining doctoral degrees, they have higher attrition rates in comparison to their male colleagues (Rogers et al., 2019).

Financial considerations are a major factor. Only 13% of IHEs in the Association of American Universities offer paid maternity leave to doctoral students, and only 5% provide dependent health care for a child. Students also struggle with being taken seriously by professors, mentors, and future employers (Mason, 2013). According to one student in the study,

> There is a pervasive attitude that the female graduate student in question must now prove to the faculty that she is capable of completing her degree, even when prior to the pregnancy there were absolutely no doubts about her capabilities and ambition (Mason, et al. 2013).

In a 2018 study published in the *Journal of Doctoral Studies*, Prikhidko and Haynes explored the difficulties of balancing motherhood and doctoral studies. Their research affirmed that graduate student mothers experience high levels of stress, anxiety, and depression as they deal with multiple role conflicts, leading to lower academic self-efficacy, decreased well-being, and instances of cognitive dissonance (Prikhodko & Haynes, 2018).

In their 2019 study, Rogers et al. (2019) used a Womanist perspective and ethnographic approach to analyze the narratives of Black women who shared how their racial, gender, and mothering identities affected their doctoral experience. Before their contribution, research about the experiences of Black mothers in graduate school and doctoral programs was essentially non-existent. The women involved in the study came from different backgrounds and contexts, and elements of their experience differed based on variables such as familial support. However, three themes revealed themselves as the women shared their stories. First, all of the women referred to racial and gendered encounters resulting in racial battle fatigue and feelings of isolation. One woman described it as “feeling like you don’t belong in their world” (Rogers et al., 2019, p. 94).

A second theme that emerged was managing motherhood and relationships. While each of the women were mothering at different stages, they all spoke of difficulty managing multiple responsibilities and having to make sacrifices. As one participant said, “I didn’t start cooking again until after I defended” (Rogers et al., 2019, p. 96). The women said they were already used to being overextended and carrying a heavy load, but the added pressure of balancing academic and familial obligations was often overwhelming. Each woman took time to educate their

families about the unique dedication required to complete a doctorate, but they often faced resistance when having to take "short-cuts" such as ordering food instead of cooking. Participants said they felt like they had "two committees", one that critiqued their academic work and another that critiqued their mothering. Families of African descent typically place a high value on family and community, and prioritizing academic work often had a negative effect on their ability to maintain relationships. And despite prioritizing their doctoral programs, the participants also reported self-doubt and insecurity resulting from not being able to attend as many conferences and other academic activities because of their parenting and financial responsibilities. This placed them in direct conflict with the doctoral socialization process. The women all agreed that the doctoral process does not recognize the demands of motherhood and made them feel that they had to choose either their children or their program. This choice was complicated by the fact that they felt an urgent need to be fully present for their children in order to protect them from systemic oppression and racialized experiences in school and other environments.

The final theme was mentorship and affirmation. The women discussed deliberately seeking Black female mentors that could provide candid insights about navigating and persisting through the doctoral experience. One participant said,

> had it not been for my Black female advisor, I would never have completed my doctorate. Despite her being diligently and violently traumatized by her own colleagues in the department, she managed to support and metaphorically drag me through the process (Rogers et al., 2019, p. 99)

Their mentors challenged them, but also listened, affirmed them, and provided a safe space for healing. One participant stated that it is particularly important for Black women to have mentors that understand the importance of family and children. Mentors must realize that Black mothers

engage in the doctoral process to better their lives and the lives of their children (Rogers et al., 2019).

The Unique Role of Historically Black Colleges and Universities

Some have found forms of relief from the challenging intersectional experience of being Black and female in academia by attending Historically Black Colleges and Universities (HBCUs). HBCUs were developed after the Civil War to serve the educational needs of African Americans who were systematically denied admission to traditionally White IHEs under the premise of "separate but equal". Since their foundings, HBCUs have had a distinctive role in African American education, serving as spaces created to nurture a student population from a wide range of socio-economic and educational backgrounds, while providing effective integration, mentoring, opportunities that can be difficult to access at predominantly white institutions ("PWIs"), and a respite from racially charged interactions (Mitchell, 2018).

In her 2018 study, Candis Mitchell sought to discover if the type of educational institution attended (HBCU vs PWI) had an effect on the level of minority status stress, perceived faculty support, persistence attitudes, and perception of the university environment. Mitchell administered a survey with a demographic questionnaire and a series of five validated instruments such as the minority status stress scale, then conducted three MANOVAs and one ANOVA to determine the relationship between three independent variables and 10 dependent variables (subscales). She found that African American students attending HBCUs reported lower levels of social climate stress and interracial stress than their counterparts at PWIs. African American students at HBCUs also reported a more positive perception of the university environment and better attitudes about persistence (Mitchell, 2018).

Indeed, HBCUs have been found to have unique, nurturing environments that foster academic success, emotional (support?), and greater persistence (Gasman et al., 2017; Mitchell, 2018). Ultimately, these environments have helped HBCUs become prolific contributors to the pipeline of African American professionals, particularly in STEM and the health sciences. From a high of seven Black medical schools in 1910 to a subsequent low of two in 1920 and four today, American society has always depended on HBCUs for the creation of Black medical professionals to help meet the needs of Black communities. Up until the Civil Rights Act of 1966 allowed Black students to be admitted to all U.S. medical schools, HBCUs Howard and Meharry Medical Schools were solely responsible for the production of Black doctors. These two HBCU medical schools are responsible for over 80% of the Black doctors and dentists practicing in the U.S. today.

This stands in contrast to PWIs, where many African American students never gain admission to medical school or fail to obtain degrees once admitted. Research on the challenges of African American students on the pre-med track calls out a lack of mentorship and social support as recurrent factors impeding success , and ones that continue into the medical school and residency environments. African American medical students also call out issues with discrimination, prejudice, and stereotype threat as obstacles they face in addition to academic obligations (Gasman et al., 2017).

While Black women collegians at HBCUs may avoid these race related challenges, they still face issues related to gender and the traditional structure of the academy. Olivia Perlow's (2013) chapter on parenting as a graduate student at an HBCU in *Mothers in Academia* provides clarity on how the supportive environment and focus on social justice at HBCUs can obscure the internalization of patriarchal, white supremacist, and capitalist systems that negatively impact

women students, their reproductive choices, and their persistence in ways similar to those found at PWIs. Perlow's experiences echo recurring themes of the lack of family housing, flexible schedules, and childcare. Her commentary on mentorship for Black women with children stands in contrast with the positive mentoring experiences other student groups at HBCUs report. According to Perlow, mothers at HBCUs can become victims of conservative middle-class values and "respectability politics" that frown upon Black student motherhood. At her HBCU, Perlow said that a student mother status disrupted the normative sequence of education, independent achievement, and securing financial stability before having children—playing into white supremacist notions of irresponsible and unrestrained Black reproduction. As a student mother, Perlow experienced some professors and administrators communicating their disapproval of her and other Black student mothers, including accusations of incompetence, limited mentorship, and unwillingness to provide concessions or flexibility offered to students with disabilities and student athletes. Perlow also reports expressions of disappointment and disapproval from peers, disrupting much needed peer support structures. While it would be inappropriate to generalize Perlow's experience to other Black women collegians at HBCUs, it elevates a need for more research on the experience of this population, as most HBCU research focuses on males even though women represent the majority of students. It furthermore calls for greater attention to be paid to the needs of Black women collegians by HBCUs, as they strive to create supportive environments that allow all of their students to persist and matriculate.

The preservation and strengthening of the "leaky" pipeline of African American students into the health sciences and medicine in particular is essential to the promotion of Black reproductive health and other health disparities impacting this population. Black physicians give Black patients trusted allies in healthcare and elevate the level of cultural competence in the

health system. They also contribute to greater access for minority populations. In California, research shows that physician supply is inversely related to the concentration of Blacks and Latinos in a health service area. However, minority physicians are more likely to practice in underserved areas and to have patient populations with a higher percentage of minorities, lower incomes, and worse health status than their White colleagues (Smedley et al., 2001).

Despite these benefits, only 5% of physicians are Black, compared to 13% of the population (DataUSA, 2020). Two percent of active physicians are Black women and these percentages shrink further in specialty fields such as oncology or obstetrics and gynecology. This lack of diversity and the systemic racism it contributes to can be life threatening. In addition to the issues around implicit and explicit bias, and the role that plays in access and quality of care discussed earlier in this literature review, recent research from the University of Minnesota School of Public Health highlights the importance that provider diversity has in addressing disparities in Black infant mortality.

Reproductive health equity researcher Rachel Hardeman and her co-authors reviewed the data of 1.8 million Black and White children born in Florida between 1992 and 2015, alongside data on their medical providers from Florida's Agency for Health Care Administration, to better understand the impact of racial concordance between infant patients and their providers. They found that when cared for by White physicians, Black newborns were approximately three times more likely to die in the hospital than White newborns. However, when Black physicians cared for Black newborns, that excess mortality rate dropped by about 50%. This effect was even more prevalent in medically complicated situations and in hospitals that deliver more Black babies (Greenwood et al., 2020).

Research on the positive impacts of the presence of Black medical providers highlights the need to better support Black women students in the health sciences, but currently even HBCUs are not the magic bullet. The experiences of Black women students in the health sciences and their needs in terms supporting their reproductive health represents a significant gap in the literature as we mobilize to reduce birth disparities.

Conceptual and Theoretical Framework

The conceptual framework that serves as the foundation of this study is grounded in both Black Feminist Thought and Critical Race Theory.

Black Feminist Thought

Black Feminist Thought ("BFT") serves as the primary theoretical and epistemological basis for this study, which centered the lived experience and knowledge production of Black women collegians. Articulated by Patricia Hill Collins in 1990, BFT's six tenets serve as a framework and lens through which to contextualize the unique lived experience and intellectual tradition of Black women (Collins, 2009). The first tenet affirms a distinctive group consciousness among Black women, or Black women's standpoint that is based in a common experience of racial, gendered, and classist oppressions. In her second tenet Collins acknowledges that Black women are not a monolith and may react to these oppressions differently based on social class, religion, ethnicity, age, sexual orientation, and other factors. The third tenet explains that the thoughts, experiences and actions of Black women are interconnected, with collective experiences of oppression and knowledge creation harnessed to fuel acts of resistance. Fourth, Collins highlights the role of Black women researchers and intellectuals in shaping the future directions of BFT for ourselves and Black women as a collective. The fifth tenet rejects BFT as a static critical social theory or feminist practice, and

acknowledges that it must evolve to effectively resist an evolving social context. In her last tenet, Collins asserts that, Black feminism requires searching for justice not only for U.S. Black women but for everyone, establishing a diasporic, humanist worldview of social justice.

Reproductive Justice

For decades, Black women have framed Black reproductive health as a social justice issue. In 1994, Reproductive Justice was conceptualized as a theory, strategy and embodied activism created by Black women pushing against a conservative, racist, and misogynist society that devalues the lives, partners, and children of Black women (Roberts, 2014). The women of the Combahee River Collective sought a framework that captured a reality not adequately addressed by traditional feminism and the pro-choice/pro-life binary that has dominated the reproductive health discourse. Black women must confront a range of intersectional reproductive health concerns that influence if or when she is able to have a child, many of which are further complicated by institutional racism. Based on human rights, Reproductive Justice Theory is centered on three interconnected values: 1) the right not to have children by using safe birth control, abortion, or abstinence; 2) the right to have children under conditions we choose; and 3) the right to parent the children we have in safe and healthy environments. These values go beyond the historical focus on equality and crafting policies that help women fully integrate into the existing American system. They instead demand *justice* by recognizing the inherent flaws in the system and seeking a complete transformation.

Intersectionality

Coined by Kimberlé Crenshaw (1994), intersectionality serves as a key concept in both Black Feminist Thought and Critical Race Theory. Intersectionality refers to the interlocking systems of racial, class, and gender oppression that many Black women experience in the United

States. Intersectionality established a framework to examine these oppressions as mutually constructed instead of separate systems.

Critical Race Theory

Changing demographics in education create tension between an increasingly diverse and social justice focused student body and administrators that are not equipped to successfully implement social justice and equity efforts on campus (Deil-Amen, 2014). According to Gerardo Lopez (2003), today's educational leaders believe that the key areas in education worth studying are technical, such as organizational theory, operations, and leadership. They have a very limited understanding of race and race relations and believe that nothing worthwhile can be learned from studying or understanding diversity. These beliefs are informed and supported by the nature and structure of many leadership preparation programs, which do little to equip future educational leaders with an understanding of race, race relations, and the importance of diversity (Lopez, 2003). When issues of racism bubble up in this environment, they are perceived as individual and irrational acts in what is otherwise a colorblind, just, and rational society. Regardless of the manifestation, it is always at the individual level, and not an institutionalized, systemic, and social construct connected to the larger distribution of jobs, power, prestige, and wealth. This renders racism invisible, and easy to place in the past instead of the present. By distracting from institutional barriers and inequities and focusing on the ignorance of individuals, which cannot be controlled or changed by the more sensible majority, it becomes easy to find absolution from responsibility.

In order to combat this it is imperative that we critically interrogate how race fits in the larger discourse of what educators are supposed to know and be able to do. We need to develop anti-racist educators who recognize the reproductive nature of schooling and have the courage to

envision different possibilities of education for marginalized populations in particular. This is increasingly important considering the changing demographics of the student population. Lopez provides a call to action for educators to move beyond the misguided and outdated structure of schooling and education. Scholars and preparers of educational leaders have a duty to know and raise questions about race in society, as well as an ethical responsibility to interrogate the systems, organizational frameworks, and leadership theories that privilege groups or perspectives over others. We have a duty to transform schools from being a sorting mechanism in the larger global market (where people from certain backgrounds fit certain roles), to being institutions of hope and social change that support instead of silence both students and educators who are culturally different.

In order to meet these obligations and address this toxic trend, a critical re-evaluation of the knowledge base in education must be made, which cannot be done without discussion of race. The way to unmask the hidden faces of racism in all its forms is to begin a critical examination of our own collective practices and knowledge base through Critical Race Theory, which has influenced many of the social sciences, emerged in public health, and is a useful tool in education for examining climates, policies, and practices in IHEs. While formed in relation to critical legal studies that address racial inequities in society, Critical Race Theory can help us understand inequality in schools through the application of five tenets: counter-storytelling; the permanence of racism; Whiteness as property; interest conversion; and the critique of liberalism.

Imperative for the Study

In this literature review, I explored established research on Black infant and maternal mortality and other birth disparities, their root causes, and implications for educational outcomes. I also highlighted two vital roles that Institutions of Higher Education and HBCUs can play in

supporting the reproductive health of Black women, as a trainer of medical providers and as an environment for Black women students. Last, I highlighted the gap that this research hopes to fill, which is the experience and recommendations of Black women in higher education, particularly those in the health sciences who are uniquely positioned to offer important data on the role of higher education in supporting their own reproductive health and their ability to support the reproductive health of other Black women as medical providers.

CHAPTER THREE: METHODOLOGY

In California and other states across the U.S., policymakers and practitioners are seeking interventions that can help address disparities in African American infant and maternal mortality. As discussed in Chapter Two, research shows that these disparities are primarily caused by the weathering effect of the chronic, toxic stress mothers experience because of living in a racist society. Despite the unique stressors that Black women collegians face, there is no research on their reproductive health experiences and how their academic institutions can best support them as they seek to matriculate. To fill this gap in the literature, this study sought to answer the following research questions:

1. What challenges do Black women collegians face regarding their reproductive health?
2. According to Black women collegians, how can HBCUs better support their reproductive health?

In this chapter, I outline and justify my exploratory, sequential, transformative mixed methods research design for investigating the reproductive health challenges of Black women collegians and their support recommendations. I then review the study's site and population, and my approach to data collection and analysis. Finally, I conclude with a discussion of the applicable ethical, validity, and reliability considerations.

Research Design and Rationale

This research sought to fill gaps in the literature regarding ways higher education can better support the reproductive health of Black women collegians. The study was transformative in nature and designed to center the perspectives of the Black women collegians themselves, grounded in the Black feminist epistemological stance that Black women are best positioned to

contribute to such oppositional knowledges using their experiences as situated knowers (Collins, 2009). This represents a dialogical relationship between collective lived experience and group knowledge, which can then be harnessed for further empowerment. The study's findings represent counter-storytelling that not only supports the understanding and responses of Institutions of Higher Education, but also supports our understanding of ourselves and our own collective response as Black women.

To address these dual purposes and create a comprehensive dataset, I determined that an exploratory, sequential, and transformative mixed methods design was the most appropriate to address the research questions in this study (Creswell, 2014). Mixed methods research is increasingly used in the social sciences, and allows for supporting the triangulation of data, enhancing or clarifying findings from one method with findings from another, and expanding the breadth of research (Onwuegbuzie & Leech, 2004). The sequential design of a focus group's findings informing a survey harnessed these methodological benefits, resulting in a richer data set. In addition to using the focus group data in the survey design, I also decided to incorporate the focus group data into the final analysis and presentation of data because it provided a more comprehensive understanding of the sample population and research questions than the survey data alone.

Methods

Qualitative Methodology

First, I collected qualitative data through focus groups. Qualitative research allows for the study of complex phenomena with a limited number of participants. While the knowledge produced may not be generalizable, it does allow for deep exploration (Johnson & Onwuegbuzie, 2004). The study topic, reproductive health, is sensitive so I designed the focus group using a

Sister Circle format. Since the 1800s, Sister Circles have traditionally been used as a cultivated safe space for Black women to come together in a supportive group and authentically discuss issues impacting them socially and personally, from a racialized and gendered perspective. They also allow the researcher who shares these identities to take a participatory role in the group (while being inclusive and aware of their subjectivities). While supporting the sharing of sensitive topics and experiences such as those involving health, they also organically facilitate the sharing of different perspectives, encouragement, and potential solutions, with the possibility of participants leaving with more than which they came. Sister Circles have been found to be particularly helpful in matters of public health, reducing risk factors and promoting positive health changes, and furthermore have been used as an anxiety intervention for professional African American women (Neal-Barnett et al., 2010). This qualitative approach allowed me to explore the perceptions of Black student collegians in a deeper way, creating a clearer picture of the phenomenon and helping me to make meaning during analysis (Creswell, 2014).

Quantitative Methodology

This study design incorporated quantitative data collection as a second phase. A survey was utilized to support the ability to generate numerical data, generalize inferences about characteristics or experiences from the study sample to the larger population, and to support replication of the study (Creswell, 2009). Data from the focus groups was analyzed and used to inform the design of the survey instrument. The protocol included both quantitative and qualitative, open field questions to allow for richer data and responses that differed from the constructs and variables chosen by the researcher. The quantitative questions included a set of demographic questions to collect information about respondent age, program level, employment status, relationship status, and parental status. They also included questions on reproductive

health experiences, stress levels, priorities for institutional support, and a subset of questions from the Community Cultural Wealth Scale (Sablan, 2018). Qualitative, open field survey questions gave respondents the opportunity to describe their reproductive health challenges, the impact of their background on their reproductive health, and their recommendations for how universities could better support their reproductive health in their own words.

Site and Population

Because the goal of the study is to explore ways that Institutions of Higher Education can support the reproductive health of Black women collegians, my target sample focused on Black women collegians in the health sciences. This population is uniquely qualified to provide feedback on the topic at hand. First, as Black women, they have lived experience in Black reproductive health. As collegians, they can provide feedback and guidance based on their own experiences with institutions they have attended as students impacted by academic policies, climate, and supports. Last, their health sciences education and training also potentially gives them greater insights into reproductive health than students that are not in the health sciences.

The main criterion for site selection for this study was access to Black women collegians in the health sciences. While Black women now receive almost 70% of doctorates conferred to Black students (Rogers et al., 2019), they still represent a relatively small percentage of students in the health sciences. In order to ensure a robust sample of diverse perspectives from this target group, I identified a historically black university ("HBCU Site") with a primary focus on reducing disparities in health while cultivating leaders through health sciences education, biomedical research, and compassionate patient care as my site. Thirty-seven percent of graduate students at HBCU Site are Black, and the average age of graduate students is 34 years old (HBCU Site, 2020). These demographics support a greater sample of Black women students in

the health sciences than I could access at many other universities. HBCU Site has historically had an interest in issues of Black reproductive health and they currently participate in a county-wide effort to address disparities in Black infant and maternal health. At the commencement of this study, they were also in the process of launching a university center to support research, workforce development, and community-based programming and care as part of their contribution to this county-wide effort.

Sample Characteristics

Focus Group Sample Characteristics

The Sister Circle focus group included 11 participants. The group included women from the United States and across the diaspora. Nine participants were current graduate school enrollees and two were recent alumni of HBCU Site. All had attended multiple academic institutions and drew from those experiences to reflect on challenges and desired supports. Educational backgrounds and interests ranged from public health, molecular biology, physiology, nursing, medicine, and biomedical science, among others. The participants expressed an interest in reproductive health that motivated them to attend the Circle, and many indicated a desire to support reproductive health in their future medical or public health careers.

Survey Sample Characteristics

The degree level of survey respondents was 41% undergraduate students and 59% graduate students. Twenty-four percent of respondents had already completed a Master's degree. The majority of respondents at both degree levels (59%) were between the ages of 25 and 34, which is considered to be prime reproductive age. Table 1 shows the degree level of the respondents and their age range.

Table 1

Respondent Age by Degree Level

Age by Degree Level	Number of Respondents by Age	Undergraduate		Graduate	
		n	%	n	%
Age 18-24	3	2	67.0	1	33.0
Age 25-34	10	4	40.0	6	60.0
Age 35-44	2	0	0.0	2	100.0
Age 45-54	1	0	0.0	1	100.0
Age 54+	1	1	100.0	0	0.0
Total	17	7	41.2	10	58.8

In order to examine personal factors that could impact reproductive health challenges and support needs, the survey included questions about employment status, relationship status, and whether respondents were parents or responsible for dependents. Overall, 44% of respondents were unemployed, 38% were unemployed but seeking employment, and the remaining 19% of respondents were employed either full or part time. Data on relationship status showed that 31% of respondents were single, while 69% were married or partnered. While not the majority, a significant number of respondents (43%) had children or other dependents. Table 2 shows a cross-tabulation of these status responses for the undergraduate and graduate subgroups.

Table 2

Respondent Characteristics by Degree Level

Characteristics by Degree Level	Number of Respondents by Characteristic	Undergraduate		Graduate	
		n	%	n	%
Employment status					
Unemployed – Not Seeking	8	1	12.5	7	87.5
Unemployed - Seeking	6	3	50.0	3	50.0
Employed Full Time	2	2	100.0	0	0.0
Employed Part Time	1	1	100.0	0	0.0
Relationship Status					
Partnered - Unmarried	7	1	14.3	6	85.7
Single	6	5	83.3	1	16.7
Married	4	1	25.0	3	75.0
Dependent Status					
Have no Children or Dependents	8	2	25.0	6	75.0
Have Children	8	5	62.5	3	37.5
Have Other Dependents	8	1	50.0	1	50.0

Overall, the demographic data shows that Black women collegians are diverse in terms of age, employment, relationships, and support of dependents, but spend multiple years of their reproductive lives in the academy, which can impact their experiences and needs.

Data Collection

After receiving required approvals from IRB at my own university and the site, I began recruitment for data collection activities. First, I convened a panel of experts from the site to get feedback and support on my design and recruitment strategy. With their buy-in I began recruiting

students in January 2021. The focus group was held in January and the Survey was distributed in April.

Focus Group

In order to identify potential participants for the Sister Circle, HBCU Site faculty supported recruitment by emailing their students (Appendix A). The email explained that participating students would receive a $25 gift card as compensation. Student reproductive health advocates also promoted the Sister Circle within their networks. Graduate students and recent alumni were targeted for this phase of the study in order to increase the likelihood that they would be able to draw upon experiences at multiple academic institutions and provide richer data. Before confirming their participation, interested students were asked to share their race or ethnicity, gender, and enrollment status. They were also asked to agree to keep any information shared during the Sister Circle confidential. All of the students that expressed interest self-identified as Black women and were invited to participate.

The Sister Circle was held via Zoom video conferencing and scheduled for 90 minutes to allow time for sharing context about the study, addressing the protocol questions, and organic follow up and discussion. Sister Circles are usually held in person to foster connectivity and authentic dialogue (Neal-Barnett et al., 2010). Because of safety issues related to the COVID-19 pandemic the session was held online and recorded using both the Zoom software and a phone-based recorder. Participants were asked to use pseudonyms (participants were encouraged to use the name of a Black woman that inspired them and share the rationale behind their choice during introductions) due to the sensitive topic, yet participants still felt comfortable enough within the space to be candid about their reproductive health challenges and experiences seeking support in both the health system and at university.

During the Sister Circle, participants were asked to share their visions of reproductive justice and whether they thought their roles as Black women in higher education presented unique challenges in promoting their reproductive health. The protocol also asked participants to describe what about campus policies, practices and climate they found to be detrimental or supportive of their reproductive health (Appendix B). They were also encouraged to use the chat function of the Zoom software to chime in if the discussion shifted before they were able to share their perspective on a particular topic. Data collected during the Sister Circle affirmed that participants believed their positionality as Black women and as students had an impact on their reproductive health experiences and presented unique challenges, especially with access to quality healthcare, stress, and campus safety. They described how institutional attitudes about pregnant and parenting students, as well as sexual assault and access to transparent information, influenced their ability to support their reproductive health. They also spoke of the importance of education and training. The Sister Circle Participants were informed that the Sister Circle data would be used to inform a survey of the larger Black women student population on campus and were encouraged to participate in the survey as well.

Survey

I drew upon the Sister Circle data, my theoretical and conceptual frameworks, as well as expert feedback to develop the survey instrument using Qualtrics software (Appendix D). The survey included 27 questions to collect information on demographics and eight constructs. To help answer Research Question (1) *What challenges do Black women collegians face regarding their reproductive health?*, the survey explored reproductive health experiences and challenges, the impact of race and education on experiences, and student stress levels. The survey also explored the strategies and assets students employ to meet their reproductive health needs, their

priorities for institutional support, and their recommendations to help answer Research Question (2) *How can HBCUs better support the reproductive health of Black women collegians on campus?*

Informed by the challenges and experiences shared by the Sister Circle participants, the survey was intended to collect related quantitative data from a larger pool of Black women collegians. While the Sister Circle targeted graduate students and recent alumni in its recruitment, recruitment for the survey was open to these groups plus undergraduates. The site's Office of Student Services provided support by sending the survey invitation via email with two follow-up reminders to a list of 400 female students and alumni (Appendix C). The survey invitation explained that survey respondents would be entered into a raffle where they could win one of two $50 gift cards. The survey was open on Qualtrics for a total of three weeks to maximize the potential response rate in light of the COVID-19 pandemic which has had a disparate impact on communities of color.

Because 37% of HBCU Site students are Black, this study assumed a pool of 148 eligible, potential survey respondents from the list of 400 female students and alumni. The survey had 29 respondents, which is a response rate of 20%. Because the survey link was sent by the Office of Student Services, it is unclear how many bounced back or were undeliverable. Nineteen of the survey respondents self-identified as Black women and consented to complete the survey. Only the responses of the 19 eligible survey respondents are included in the data analysis because they represent the lived experiences and perspectives of Black women collegians. Two respondents did not complete the entire survey, but their responses are included in the data reported. The tables in Chapter Four indicate the number of respondents for each

reported question. Due to the small sample and low response rate, however, the study data may not be representative of the whole population of Black women collegians.

Data Analysis

Qualitative Analysis

The Sister Circle focus group was recorded on Zoom. Once the focus group concluded, I reviewed the chat log and my own notes taken on themes and crescendos during the focus group, and added additional reflections. I then uploaded the Zoom audio file to a transcription service (Temi.com). Upon receipt of the transcript I compared it to the audio file for accuracy and corrected any errors. While listening to the recording I also began to turn my notes into short analytic memos on developing patterns. I then uploaded the transcripts to MaxQDA, a software program designed to support mixed methods data, text, and multimedia analysis.

Before I began my analysis of the Sister Circle transcript, I created a codebook with an initial set of a priori, structural codes based on the theories and concepts included in my literature review. I referred to these codes and added to them as I used an iterative cycle of reviewing data, recording general thoughts through analytic memos, and generating additional code descriptions and thematic categories. My first round of coding was structural and descriptive to support indexing and categorizing (Saldana, 2021). Structural codes used a priori codes informed by my literature review, included reproductive health challenges, university policies, and recommendations. Descriptive codes were inductive within the broader structural codes, and new codes that were added through the inductive process primarily added layers and nuance to these structural codes, such as fertility and holistic healthcare. My second round of coding was inductive, open, and focused on process and values. The process codes used gerunds to connote observable and conceptual action in the data (Saldana, 2021). Examples include negotiating,

advocating, and creating. The values codes focused on data that reflected the attitudes, values, and beliefs of the participants and included codes such as respect, belonging, and justice. My third and final round of coding was focused on patterns that allowed me to identify themes.

Quantitative Analysis

The goal of the survey was to gather descriptive data on the experiences and perspectives of Black women collegians regarding their reproductive health. After identifying key themes in the focus group data, I finalized the survey protocol and conducted the survey. The survey was disseminated using Qualtrics, which generated summary data reports that I reviewed to initially familiarize myself with the survey results. I then uploaded the survey data into JASP, an open source statistical software to support quantitative analysis. Because my primary purpose in this study was to better understand the experiences of one population with a small sample size, and my research questions were descriptive in nature, I analyzed and presented results using descriptive statistics including frequencies, contingencies, and percentages along Likert scales. On select demographic items I was able to disaggregate and present the data by degree level but the sample size of those subgroups was not large enough to run any tests for statistical significance.

Credibility and Trustworthiness

Ethics

Research ethics not only protect the interests of participants, but are also essential to preserve a study's reliability and validity (Merriam, 2009). This researcher's own professional integrity and skill also served as foundational motivation and expertise to achieve alignment to the highest ethical standards in study design and implementation. As this study was conducted with adults and did not include any experiments or ways that participants could be physically

harmed, beneficence through preserving anonymity in data collection, analysis, and presentation was the key ethical issue. This was particularly important as participants were sharing information about their personal reproductive health experiences and providing feedback on institutional policies and supports.

Assurances of anonymity were imperative to encourage participation and ensure candid and authentic feedback during data collection. The informed consent document that participants reviewed before joining the study explained their rights as participants and the precautions that were taken to ensure anonymity, privacy, and comfort. These precautions included: an anonymous survey that did not collect data that could be used to identify respondents; focus groups using the Sister Circle format being held via Zoom with the requirement of using pseudonyms and participating without video (so faces could be hidden); participants being asked to agree to maintain the confidentiality of focus group discussions; and finally all recordings and transcriptions being stored in a password protected location and only accessed by the researcher. Recruitment and consent documents emphasized that even though the study would be used to inform campus practices, participation was completely voluntary. Potential participants also had the opportunity to speak with the researcher and ask questions before confirming their participation. This anonymity, ability to end their participation, and access to speak with the researcher was preserved throughout data analysis and presentation.

Validity

I came to this research wearing the multiple hats of UCLA doctoral student and researcher, a Black woman personally impacted by birth disparities, a collaborative leader of a county-wide initiative to reduce birth disparities, and a reproductive justice advocate. For this study, my primary role was as a UCLA researcher and doctoral student. I believe this

positionality positively supported my access to the students, faculty, and staff, as UCLA regularly partners with HBCU Site on research and training of students in the health sciences. My social positionality as a Black woman and reproductive justice advocate has facilitated a quick and authentic rapport grounded in trust and respect for past research, and I believe that it supported my ability to build the relationships necessary to receive the very personal data and information I hoped to access in this study. Lastly, my professional role as a Program Officer at First 5 LA helping to lead a county-wide effort to improve birth outcomes for Black women and provide advice on similar efforts on the HBCU Site campus may have facilitated easier access as participants and stakeholders understood that the data collected could not only benefit our county-wide efforts but themselves personally.

In order to ensure validity of the data emerging from this study I took various steps to proactively address potential concerns about bias, reactivity, and generalizability. To address concerns about bias in sampling, I cast a wide net for focus group and survey participants, inviting all to participate that met the minimal criteria of self-identifying as Black women students or recent alumni (I also refer to this group as "collegians"). Focus group questions were informed by the literature and expert discussions. The survey protocol was pretested with an expert to ensure the questions were clearly articulated, relevant, and comprehensive from a respondent perspective. This step also tested response latency and congruence between survey items and their aligned constructs. This feedback, along with the focus group data, was then used to fine tune and finalize the constructs and variables of the survey protocol.

To address potential issues with reactivity—students providing responses that didn't match their reality but nevertheless thought to strengthen the study or reflect the popular discourse on the topic—I was deliberate about my framing of the study, as well as the crafting of

the focus group and survey protocols. For example, instead of asking students about Black reproductive health or campus policies and supports in general, I asked them to reflect upon and share their own personal experiences, as well as campus policies and supports that would help them meet their personal reproductive needs. This disincentivized projection and allowed themes to arise authentically.

As a Black female doctoral student and reproductive justice advocate, it may be perceived that I have some bias in interpreting data, discussing implications, and presenting recommendations. In order to address this, I was first transparent about my theoretical and conceptual frameworks in my writing. I then used rich data, such as direct quotes, and used tables to present all of my findings, not just those that aligned with my assumptions to confirm or contradict these frameworks.

Reliability

This study utilized a triangulation approach to address potential concerns about reliability. Triangulation refers to a procedure where researchers review multiple and different sources of information to form themes or categories in a study (Creswell & Miller, 2000). Source data from the multiple stakeholder groups of undergraduate and graduate students, as well as alumni, supported the robust identification of themes. My data collection methods were also triangulated with focus group and survey data to provide a comprehensive understanding of the research questions and bolster my findings. The data is presented in a detailed way to demonstrate thorough procedures in data collection and analysis.

Generalizability

While generalizing data from a single focus group and a survey with a low response rate is challenging and not the intention of this study, the integration of quantitative data from a survey supports the distillation of internally consistent findings and externally valid conclusions.

Summary of Methodology

In this chapter I reviewed and justified the research design and methods used for this study. I also discussed the study's site, sampling, and participant demographics. Finally, I explained measures taken to address potential concerns with ethics, validity, and reliability.

CHAPTER FOUR: FINDINGS

The goal of this study was to better understand the reproductive health challenges that Black women students face and the ways HBCUs can better support them. A sequential, mixed methods design was used to answer the following research questions: 1) *What challenges do Black women collegians face regarding their reproductive health?*; and 2) *According to Black women collegians, how can HBCUs better support their reproductive health?* Although the purpose of the sequential design was for the Sister Circle focus group to inform the development of the survey, I have also combined its findings with the survey results to provide a richer picture of reproductive health experiences of Black women students.

During the Sister Circle participants were asked to share their visions of reproductive justice and whether they thought their roles as Black women in higher education presented unique challenges in promoting their reproductive health. They were also asked to describe what about campus policies, practices, and climate they found to be detrimental or supportive of their reproductive health. Data collected during the Sister Circle affirmed that participants believed their positionality as Black women and as students had an impact on their reproductive health experiences and presented unique challenges, especially with access to quality healthcare, stress, and campus safety. They described how institutional attitudes about pregnant/parenting students and sexual assault, as well as access to transparent information, influenced their ability to support their reproductive health. They also spoke of the importance of education and training. The Sister Circle participants were informed that the Sister Circle data would be used to inform a survey of the larger Black women student population on campus and were encouraged to participate in the survey as well.

Within this chapter, I present the survey data and findings from the Sister Circle focus group administered to Black women students. I discuss the detailed findings and themes that emerged in response to the research questions from the Sister Circle and the survey. The data was analyzed through the lenses of Black Feminist Thought and Critical Race Theory to tease out patterns and themes in response to the study's research questions.

Findings

Reproductive Health Challenges of Black Women Students

To better understand the challenges Black women collegians face in protecting and promoting their reproductive health, the survey asked respondents to indicate whether they had experienced any of 10 defined challenges. Crafted through the lens of reproductive justice, the challenges reference the three primary reproductive justice principles: the right to have a child, the right to not have a child, and the right to parent children in safe and healthy environments. The challenges and responses are included in Table 3.

Table 3

Reproductive Health Challenges

Have you ever experienced any of the following?	Yes		No	
	n	%	n	%
Chronic or on-going stress	12	63.2	7	36.8
Challenges with mental health (including anxiety, depression, etc.)	12	63.2	7	36.8
Implicit or explicit bias from a medical provider	10	52.6	9	47.4
Medical provider not familiar with unique context and/or reproductive health risks of Black women	7	36.8	12	63.2
Not being able to access quality healthcare or supports	6	31.6	13	68.4
Adverse reproductive health diagnosis or outcome	5	26.3	14	73.7

Challenges promoting the health and safety of your child or dependents	4	21.1	15	78.9
Reproductive health diagnosis or outcome that negatively impacted your educational or professional performance	3	15.8	16	84.2
Having to delay pregnancy because of a lack of quality healthcare or supports	3	15.8	16	84.2
Being unable to delay pregnancy because of a lack of quality healthcare or supports	1	5.6	17	94.4

The results from the survey suggest that the most common reproductive health challenges are related to three areas: stress and mental health (63%, 63%); racialization (implicit and explicit bias) (53%); medical providers not familiar with the unique context or reproductive health risks of Black women (37%); and access to quality healthcare (32%). These challenges also emerged as important areas during the Sister Circle and are further explained below. The least commonly reported challenge was being unable to delay pregnancy because of a lack of quality healthcare or support (6%).

Stress and Mental Health

The literature reveals a connection between race related stress and Black reproductive health, so this study explored the stress levels of Black women students. This study found that a majority of Black women students had challenges with stress and mental health. As seen in Table 3 above, when indicating reproductive health challenges they have experienced, 63% of survey respondents reported experiencing chronic or on-going stress. Sixty-three percent of respondents also reported challenges with mental health such as anxiety or depression.

Survey respondents were also asked to rate their stress levels before COVID-19 and during the pandemic. Table 4 reflects a frequency table of stress levels before and during COVID-19.

Table 4

Comparison of Pre and During COVID-19 Stress Levels

How would you rate your stress level?	Pre COVID-19		During COVID-19	
	n	%	n	%
Far above average	2	10.5	4	21.0
Somewhat above average	7	36.8	8	42.1
Average	8	42.1	3	15.8
Somewhat below average	0	0.0	3	15.8
Far below average	2	10.5	1	5.3

Pre-COVID-19, 47% of Black women students reported experiencing somewhat above average or far above average stress levels. This rose to 63% during the COVID-19 pandemic. The number of students reporting far above average stress levels doubled during the pandemic, rising from 11% to 21%. Forty-two percent of students reported average levels of stress before the pandemic, and this number dropped to 16% during the pandemic. The number of students reporting somewhat below average stress increased during the pandemic from 0% to 16%, while those reporting far below average stress dropped from 11% to 5%. This suggests that while the majority of Black women students experienced more stress during the pandemic, a small number experienced less stress. These could be students that were able to work or attend classes from

home, move in with family to avoid rent, or undergo some other stress-reducing shift in circumstances as a result of the pandemic.

During the Sister Circle Focus Group multiple participants discussed their experiences with stress and how it intersected with their reproductive and academic lives, providing deeper context to the survey results. Participants provided insight into the unique stressors they faced as Black women students. While balancing responsibilities related to school, family, and work, all of the Sister Circle participants reported feeling additional pressure to prove themselves to others by going above and beyond. This could take the form of getting exceptional grades, volunteering, or taking on additional responsibilities. While succeeding at these efforts had the potential to create a feeling of acceptance or belonging, they also compounded the feelings of stress that the students experienced. One Sister Circle participant talked about how her stress levels were impacted by her positionality as a Black woman student:

> When it comes to being a black woman within higher education, I do think that it presents unique challenges because of the amount of stress that comes with it. I have two children. And aside from having a family, I add so much more onto my plate just to prove everyone else wrong. I get straight A's, I volunteer. I make sure I do as much as I can only because I feel like the world wants us as Black women to not be as successful. So I go above and beyond and I work ten times harder... So that adds that many more stressors in life. (Sister Circle Transcript, Pos. 51-52)

Another participant added that the pressure and resulting stress would not go away once they were no longer students:

> I have a black woman OB and she was talking about the additional burdens that she takes on in her role, such as supporting residents. All of the black patients also want to work with her. She's incredibly busy. And that means that she's usually late and delayed in her schedule, which then creates another layer of scrutiny within her practice. But it's because

she has this expectation of being all things to everyone. And so that doesn't really stop once you get out of the academic environment. Sister Circle Transcript, Pos. 63-65)

Racialized Health Encounters

The study found that Black women students have a unique, intersectional positionality as Black women that impacts their health experiences and interactions. This racialized positionality was continuously referenced in response to questions throughout data collection, such as when talking about stress and other challenges and experiences. According to Table 3, which details reproductive health challenges, 53% of survey respondents reported experiencing implicit or explicit bias from a medical provider, while 47% said that they did not experience that as a reproductive health challenge. Thirty-six percent of survey respondents reported having a medical provider that was not familiar with the unique context and reproductive health risks that Black women face, which is a form of racial "color blindness" that decontextualizes the health behaviors, concerns, and outcomes of patients and ultimately contributes to health inequities.

Survey respondents further described the challenges related to racialized health encounters in their open-ended responses to the question: "How has your racial/ethnic/cultural background positively or negatively impacted your ability to support your reproductive health, if at all?" Of the 14 respondents to the question, six (40%) reported no impact and one (7%) respondent reported a positive impact. Seven (53%) reported that their racial/ethnic/cultural background negatively impacted their ability to support their reproductive health. Table 5shows the qualitative themes and sample quotes for the reported negative impacts. The majority of the examples cited referenced implicit or explicit bias, racial stigma, and medical providers being dismissive or unaware of subtle medical differences or predispositions impacting Black women.

Table 5

Negative Impact of Racial, Ethnic or Cultural Background on Ability to Support Reproductive Health

Themes	Sub-themes	Sample Quotes
Experiences with Medical Providers (6)	Implicit or Explicit Bias (5)	"Yes, I feel I was racially profiled while being seen by my primary care provider during a routine PAP smear. That experience left me feeling uncared for and I was afraid to return back to the doctor and continue my reproductive health care."
		"It's not comfortable seeing healthcare providers due to racial stigma behind reproductive health and Black women."
	Lack of Awareness of Unique Health Context of Black Women (1)	"The doctors are dismissive of my concerns, if they listen at all. Most aren't aware of subtle medical differences, predispositions, etc."
Access to Quality Care (1)	Insurance (1)	"Only have Medi-Cal insurance. I'm an immigrant with no family here and therefore an independent student."
Familial Context (1)	Conservatism (1)	"As a Black woman, reproductive health was barely discussed in my household, I was told in a ten-minute conversation about birth control when I was 15 then it was never mentioned again. I have a much better understanding of my reproductive health and care options today."

Note: Numbers in parenthesis indicate the number of survey respondents that reported the negative impact.

Multiple Sister Circle participants shared similar experiences, affirming the data reflected in the survey about the negative impacts of racialization when interacting with medical providers on their ability to support their reproductive health:

> I have endometriosis and I have ovarian cysts. I've never had children but I do want to have a large family. And sometimes I feel like the doctors or OB GYN that I've seen are not supportive or they don't understand that as a black woman I already face higher risk. I fall into that statistic and then I have these other preexisting health conditions that are not being addressed properly. (Sister Circle Transcript, Pos. 43-44)

Access to Quality Healthcare

Researchers have documented the challenges that students of color have in accessing quality healthcare. In this study, 32% of survey respondents reported not being able to access quality healthcare or supports (Table 3). Even though fewer than half of the survey respondents indicated access was a challenge, it is still notable that about a third of the women *did*. The survey open-ended responses and the Sister Circle data provide a richer description of the challenges that the women faced. The students described challenges related to insurance coverage, getting birth control, and seeing medical providers.

A Sister Circle participant shared her experience trying to access healthcare on campus over the summer break:

> I have this situation where it was summer but I had a healthcare emergency. So I walked over to the healthcare center on campus, in a panic and stressed out. And after paying thousands over the years for healthcare through your school, you sort of come to expect a bare minimum of respect and help. Right? But they told me, sorry, you're not enrolled in any classes. We can't help you. I said to them, well, I have Medi-Cal, do you accept that? No, we don't accept Medi-Cal. And I said, well, this is sort of an emergency. And they just said, well, sorry, we can't take you. And it was just shocking to me. (Sister Circle Transcript, Pos. 62-63)

Even though survey results from Table 3 suggest that only 22% of respondents had to delay or were unable to delay pregnancy because of a lack of quality healthcare or support, Sister

Circle participants provided deeper insight into how challenges with access to healthcare influenced decision making and outcomes around family planning. One Sister Circle participant talked about how being on a conservative campus during her undergraduate studies impacted her access to quality healthcare:

> We had to learn about everything that goes along with the body and with the reproductive system, but we were on a Catholic campus. So we couldn't really get into everything without people getting offended. So I had teachers who would just close the door and have open conversations with us, but there were no condoms on campus. There was no birth control on our health insurance. And a lot of people are trying to make sound decisions, but you weren't offered what was offered on other campuses. (Sister Circle Transcript, Pos. 59-60)

This participant further described how being on a conservative campus in a state with reduced access to reproductive resources compounded the challenges that students experienced:

> We had a lot of students who would get pregnant. And I thoroughly believe that a lot of the pregnancies were because they didn't have the resources that they needed. And then additionally, the South doesn't have open abortion clinics. So women couldn't even really make the decision for themselves if they wanted to terminate a pregnancy or not based on their personal beliefs. I know people who had to drive across state lines, they were driving three, four states a day just to go to a state that had a clinic that was available. (Sister Circle Transcript, Pos. 61-62)

Alternatively, One Sister Circle participant provided a detailed explanation of how being both a Black woman and graduate student with limited access to quality healthcare restricted her ability to start a family:

> I made the conscious decision to say to myself, okay, I will not have a family. I will not have kids, not because I don't believe in myself to be able to handle it and do it, but I don't believe in the healthcare system. And I already know, and have experienced injustices in

> the healthcare system, in the U. S. just based on my appearance. I can maybe do that to myself, but I couldn't do that to my children. And I'm not going to be able to support them medically if I am a student and depending on Medi-Cal or my school's nurses or doctors, I have to be somebody in a position who's educated, who then has proper healthcare because that would be the responsible thing for me to do as a black woman for my black family. I need to raise them in an environment where they'll have good doctors and good pediatricians, and I won't have any hassle for being a poor black woman. And I mean, eight years of somebody's reproductive life is pretty significant, it's a long time. (Sister Circle Transcript, Pos. 48)

These negative experiences with providers and the healthcare system have the ability to exacerbate negative health experiences and outcomes. In response to the open-ended survey question about reproductive health challenges, six respondents (40%) described outcomes that ranged from PCOS (polycystic ovary syndrome) to almost dying along with their child during labor and delivery. While respondents did not share context on how these experiences impacted their educational or professional performance, existing literature suggests that being unable to take time off or access quality care to attend to emergent or chronic health issues can be a concern. Even when accessing care, experiences with providers during the health encounter had the potential to exacerbate the diagnosis itself. As one woman shared in the open-ended survey option question on challenges:

> I have been diagnosed with HPV, however the experience of finding out that information was traumatizing due to the disturbing medical procedure, misleading information, and a lack of communication between me and hospital staff.

The reproductive health challenges reported by Black women students related to stress and mental health, racialized health encounters, and access to quality healthcare can discourage students from engaging with the health system and seeking preventative care or treatment for

chronic conditions. This further compounds health issues and increases the likelihood of negative impacts on academic performance, illustrating the need for students to have access to quality care and support on campus.

Supporting Black Women's Reproductive Health Needs on Campus

The second research question asked how HBCUs could better support the reproductive health needs of Black women students on campus. To answer this, the study centered the perspectives of the impacted population. To understand their priorities, the survey asked respondents to rate which university policies and supports they considered to be most important in supporting their reproductive health. Survey respondents were asked about elements of community cultural wealth they used to secure support and resources as well as strategies they use to navigate barriers. Finally, both the survey and Sister Circle asked study participants to make specific recommendations to universities that would help support their reproductive health. Together, this data captures Black women student voices and expertise grounded in their lived experience in a way that informs how universities can better meet their needs.

Priorities for Institutional Support

The survey asked respondents to rate how important a set of 16 institutional practices, policies, and supports were for their reproductive health, based on their personal experiences and needs. The 16 items and student responses are included in Table 6.

Table 6

Reproductive Health Support Priorities

How important are the following items for your reproductive health?	Extremely Important		Moderately Important		Unimportant	
	n	%	n	%	n	%
Support around safety and sexual assault	16	88.9	2	11.1	0	0.0
Health insurance	15	83.3	3	16.7	0	0.0
DEI policies	14	82.4	3	17.6	0	0.0
Access to mental health resources	14	77.8	4	22.2	0	0.0
Access to transparent information about reproductive health care, resources and support	14	77.8	4	22.2	0	0.0
Access to reproductive health services on campus	12	66.7	6	33.3	0	0.0
Confidentiality and privacy when accessing reproductive care, resources and supports	15	83.3	2	11.1	1	5.6
Maternity leave	14	77.8	3	16.7	1	5.6
Reproductive health education and training specifically about Black women	14	77.8	3	16.7	1	5.6
Parent support programs	14	77.8	2	11.1	2	11.1
Institutional attitude toward reproductive health and parenting	13	72.2	4	22.2	1	5.6
Peer connections	13	72.2	4	22.2	1	5.6
Reproductive health education and training	12	66.7	5	27.8	1	5.6
Childcare on campus	10	55.6	6	33.3	2	11.1
Lactation rooms	9	50.0	6	33.3	3	16.7
Access to abortion and contraceptives	9	50.0	3	16.7	6	33.3

Out of the 16 items included there were six that 100% of respondents rated as extremely or moderately important. Support around safety and sexual assault was an institutional practice that 100% of respondents rated as important, and 88.9% of respondents rated as extremely important in promoting their reproductive health; this issue also emerged multiple times in the survey and the Sister Circle. The data from both the survey and the Sister Circle suggest that Black women students want to be able to feel safe on campus and know that they will have the support of the university if they experience an assault. Institutional culture also had an impact on feelings of safety. Multiple Sister Circle participants discussed challenges getting their previous institutions (both PWIs and HBCUs) to be responsive to issues of safety and sexual assault. Some participants felt that the unique institutional context of HBCUs could impact the administration's response, resulting in the student feeling unsupported:

> I had an experience where I was sexually assaulted and so my school didn't really do anything either. They didn't help me. So I think that campus policy kind of made it harder for me to walk on that campus. Because I felt like I wasn't protected and I just felt like I always had to keep my guard up because even though I'm at an HBCU and I'm thinking, you know, everybody's for me I still felt alone.

Participants were in agreement that one of the reasons safety seemed to be complicated for HBCUs to address was their historic positionality. Similar to that of Black individuals, participants perceived that HBCUs were expected to prove themselves and their respectability by minimizing anything that could be considered damaging to their reputation. One participant stated that: "A lot of universities have a bigger focus on protecting the reputation of the university over the safety of their students" (Sister Circle Transcript, Pos. 71). In response, another participant noted the impact of lost credibility on institutional funding:

> I think HBCUs as a whole, we struggle when something happens on our campus because you know, a lot of times in black culture, we have this mindset that like what happens in our family stays within our family. And it's just such a fear that when the information comes out, you'll lose your funding. You'll lose your sponsors, you'll be viewed differently. Like we're still having to validate ourselves. (Sister Circle Transcript, Pos. 72-73)

There were three other supports that were prioritized by survey respondents. Health insurance was elevated in the data as an important gatekeeper for the type of health care that students were able to receive. One hundred percent of survey respondents rated this as important, with 83% noting health insurance as extremely important. Additionally, 100% of survey respondents indicated that Diversity, Equity and Inclusion policies were important, and 82% said that it was extremely important for their reproductive health. DEI policies not only protect students, they also help create a common understanding and accountability among students, faculty and staff about what constitutes an inclusive environment. Students also prioritized access to mental health resources, with 100% rating it as important and 78% rating it as extremely important. This is in alignment with survey results revealing stress and mental health as commonly experienced reproductive health challenges. Sister Circle participants also elevated the importance of health insurance and mental health resources as elevated elsewhere in the findings. While Sister Circle participants did not explicitly mention DEI policies, some participants did talk about the essential role administrators and faculty play in creating an inclusive environment for pregnant and parenting students.

Another institutional practice that 100% of respondents rated as important and 78% rated as extremely important was providing transparent information, which was elevated multiple times during data collection. Black women students often feel like they have to hunt for information and resources, which requires them to spend their limited time and political capital

seeking answers. All of the Sister Circle participants agreed that the process of finding information that should be readily available on public websites was stressful, draining, and made them feel they were seeking resources they were not entitled to. As one stated:

> I think if you're running a university and you're being completely transparent, it should be there. If I have a question about childcare I should be able to look on the website and find it somewhere and not have to go to this person. They don't know. They refer me to this person who doesn't know, who sends me to this person until you finally get to the person who halfway knows something. So, you know, like that chain of command is discouraging as well. Cause if they don't know, then you feel like, okay, maybe it's not actually something that's for me. (Sister Circle Transcript, Pos. 89-90)

Another Sister Circle participant affirmed this statement in the Zoom session chat, writing "Sometimes finding the right support is like digging for gold." Transparent information was also mentioned as a deciding factor in reproductive health, with one participant sharing:

> What resources are out there? The promotion of those resources can really help someone who may be on the brink of keeping a child or not keeping the child. So having more transparency and more access to what exists, you know, how you can take maternity leave, what does it mean for your schooling? Can you take time off of school or get an incomplete instead of a fail when you get pregnant? That level of transparency is very helpful for those in that situation when it comes to promoting reproductive health. (Sister Circle Transcript, Pos. 92-103)

Strategies to Overcome Barriers

The skills and strategies that the students themselves use in response to challenges to their reproductive health can help inform institutional practices that reduce barriers and improve reproductive and academic outcomes. Survey respondents were asked what strategies they use to overcome obstacles that are presented by the academic/university environment. The survey also included a subset of questions from the Community Cultural Wealth Scale (Sablan, 2018), which

is a way of applying Critical Race Theory into quantitative research by operationalizing Yosso's Community Cultural Wealth theory (Yosso, 2005) to better understand how students of color persist in academic environments. Table 7 below shows responses to a series of three questions adapted from the Community Cultural Wealth Scale that measure familial, social, and navigational capital. Sister Circle participants also made references to their attempts to overcome barriers.

Table 7

Community Cultural Wealth

How would you rate your agreement to the following statements?	Strongly Agree		Somewhat Agree		Neither Agree nor Disagree		Somewhat Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%
I am connected to a network of family and/or friends that I can turn to for support	11	64.7	4	23.5	2	11.8	0	0.0	0	0.0
Even when presented with obstacles, I am able to navigate and access resources at my university	2	11.8	13	76.5	1	5.9	1	5.9	0	0.0
Even when I have limited resources, I am able to secure the essentials for my education and reproductive health (e.g. tuition, contraception, etc.)	4	23.5	8	47.1	2	11.8	3	17.6	0	0.0

Familial and Social Capital. The first question presented in the table is designed to measure the assets of familial and social capital. Familial capital is connections to and knowledge of family and kinship networks while social capital refers to peer and other social connections. Survey results revealed that 24% of the Black women student respondents somewhat agreed and 65% strongly agreed that they were connected to family and friends they could turn to for support. When asked what strategies they use to overcome barriers in another part of the survey, multiple respondents pointed to their connections to friends and family as illustrated by one survey respondent, who said, "I reach out to close family and friends for help and support." This was further supported by Black women students in the Sister Circle who described how they rely upon other students and people in their network with lived experience to learn how to access what they need. One participant described how she was able to learn about lactation and childcare resources:

> So we have one lactation room in the nursing building, and I don't think they advertise it well. Then you can use the childcare services across the street, but that's not campus related. I think there's a discount. However, like I said, this information isn't publicized. It's not like when you go through orientation, they share this. I only know this from having classmates and having students who have had to bring kids to class and try to seek solutions. (Sister Circle Transcript, Pos. 101-102)

Another participant described how Black students were able to form relationships even when they were not well represented on campus:

> There's smaller numbers of Black students, but those students are very close to each other and advocate for each other. And you kind of create these little families within a cohort or even across. It's a really positive experience. (Sister Circle Transcript, Pos. 107-108)

Multiple Sister Circle participants also expressed their appreciation for this study's Sister Circle, among others they have participated in, as a way to build social connections and learn more about reproductive health and available resources.

Navigational Capital. The second and third questions represented in Table 7 are designed to measure navigational capital. This is the ability to navigate social institutions, including educational environments. Having this type of capital empowers students to maneuver in unsupportive environments. Twelve percent of survey respondents strongly agreed and 77% somewhat agreed with the statement that "Even when presented with obstacles, I am able to navigate and access resources at my university." However, only 24% of survey respondents strongly agreed and 47% somewhat agreed with the statement "Even when I have limited resources, I am able to secure the essentials for my education and reproductive health (e.g. tuition, contraception, etc.)." Eighteen percent of survey respondents somewhat disagreed with the statement. This suggests a gap between what students need and what they are able to access on campus, even when utilizing their navigational capital.

As an example, a common barrier discussed by Sister Circle participants was accessing information about available resources. In situations where information was not readily available, or policies or supports did not exist to address a student need, Black women students reported approaching university staff for support. When they didn't get what they needed the first time, they continued to engage staff to seek solutions. One Sister Circle participant used illuminating detail to describe her experience returning to staff over multiple semesters in her attempt to get access to the childcare on campus, and the positive impact on her studies once she finally secured access:

> My daughter was three years old when I was in the last year of my undergrad. They actually had childcare on campus. So I went and inquired about it and the lady said, Oh, sorry. Right now childcare is only for professors. I said, okay, thanks. So I left and it bothered me to my core because we're students and we pay to go here. If we have children we should have access to it. I walked away and I was like, I'm not okay with that. So I went back and I had to dig a lot. It wasn't like I could go in, get my daughter signed up and be okay. I had to fight to get her there. And I finally was able to get her in. It took me about three semesters, so almost a year to finally get her in there. And they were able to work with my school schedule and the difference it made in my life and in my studies was dramatic. It does make a difference because as a mother, knowing your child is on campus and a safe place, if you need to go check on them, you can just walk on over, check on your child and, you know, go back to your studies is crucial. (Sister Circle Transcript, Pos. 66-67)

In addition to repeatedly engaging staff to seek support, Black women students used advocating with leadership as a navigation strategy to overcome barriers. Multiple Sister Circle participants reported being able to appeal to university leadership to either secure individual or group accommodations. One Sister Circle participant described students successfully advocating with the university president to have access to parking closer to their classrooms: “When we had students who were pregnant on campus, they reached out to the president and they were able to get parking spots so they didn't have to go to the garage” (Sister Circle Transcript, Pos. 114).

While I only included three questions from the Community Cultural Wealth Scale that I thought were most aligned to this study in the survey, analysis of patterns in both data sets revealed that Black women students utilized all six of Yosso’s community cultural wealth assets to secure necessary resources and supports. These included resistant, linguistic, and aspirational capital in addition to familial, social, and navigational capital. Findings aligned to resistant, linguistic, and aspirational capital are described below.

Resistant Capital. When Black women students used their navigation skills to secure resources for those beyond themselves and change policy, they employed what Yosso (2005) describes as resistant capital, or the knowledge of and motivation to transform oppressive structures. This activism on behalf of others goes beyond the Black women "in group" and was elevated as a value when Sister Circle participants discussed reproductive justice. Many of the participants talked about wanting to secure reproductive freedoms and remove barriers for everyone, not just Black women:

> Reproductive justice means removing all the barriers that are currently in place that keep people out, whether they be black, white, doesn't matter. If it's a barrier, it's an injustice and having reproductive justice means the active force of removing those barriers for everyone so that we can all reach and attain the level of decency, compassion, and the rights that we should have in health care. (Sister Circle Transcript, Pos. 10-11)

Another Sister Circle participant described groups of students organizing on campus to get reproductive health supports or policy changes in support of the broader student body, as well as faculty, ultimately shifting the institutional culture:

> And every other school was talking about reproductive health, talking about safe sex, talking about birth control, handing out products, having seminars and our campus was like a ghost town. So we had a lot of town halls and meetings with university staff. Can we get a daycare on campus for the professors? Can we get birth control? And I will say that through the time that I was there, the administration changed and it got better. (Sister Circle Transcript, Pos. 40-41)

When they cannot depend on university faculty or administration to accommodate them, some students create their own supportive solutions for their peers. One survey participant described creating an affinity group in order to share resources for her school community in the near term, while also impacting the health services pipeline in the long term:

> I started a women's health interest group on campus to help myself and other students share resources and discuss different situations related to health. This has given me courage that the next generation of doctors, nurses, physicians assistants, etc. will treat their patients with more empathy and care so that no one has to go through what I did in a professional hospital setting. (Sister Circle Transcript, Pos. 44-45)

Linguistic Capital. Linguistic capital is the ability to develop and deploy communication skills through experience. In their open-ended responses to the question "How has your educational background positively or negatively impacted your ability to support your reproductive health, if at all?", three out of 14 respondents (21%) reported no impact, while one (7%) reported a negative impact—explaining that her status as a student with limited support meant she was unable to start a family. Ten respondents (71%) reported that their education had a positive impact on their ability to support their reproductive health. All of these positive impact responses described their education equipping them with a greater understanding of health risks, health promotion strategies, or ways to advocate for themselves with providers or the health system. Themes, sub-themes, and sample quotes describing these positive impacts are included in Table 8 below.

Table 8

Positive Impact of Educational Background on Ability to Support Reproductive Health

Themes	Sub-themes	Sample Quotes
Increased Reproductive Knowledge (10)	Knowledge of potential risks (3)	"Given that I am a PA student I am able to recognize signs and symptoms that require immediate attention."
		"Studying health/nursing gives me the opportunity to learn more about health problems that concern me."

Knowledge of health promotion strategies (4)	"My educational background has enhanced my knowledge on healthy practices that would support favorable reproductive health." "Positively. I learned many methods and routes to ensure better health outcomes."
Knowledge of how to advocate with providers (3)	"My education has enabled me to advocate for myself and my child. I'm no longer too embarrassed to ask for the boss when I'm not being heard." "My education helped me positively because I learned about how I should be supported with health so therefore I won't take anything less."

Note: Numbers in parenthesis indicate the number of survey respondents that reported the positive impact.

Affirming the survey data, all of the Sister Circle participants reported drawing upon their education experiences in the health sciences to better communicate with their medical providers and secure higher quality care. This included having the foundational knowledge to know what to ask and to perceive when valid concerns were being overlooked, allowing them to better advocate for themselves or their children.

Multiple Sister Circle participants described how their education allowed them to get better care within the health system. One participant shared how her experience during her two pregnancies differed because of her health sciences education and ability to communicate her needs and expectations. While she simply accepted what her medical providers told her during her first pregnancy, she was better able to assess her treatment and advocate accordingly during her second pregnancy:

> When I had my ten-year-old I wasn't as educated. And so I kind of went along with the doctor and the nurses said, like, okay, well they know what they're talking about. But now

> being educated and knowing more about reproductive health and black maternal health this journey was completely different. So I actually went through three different prenatal doctors because I was able to advocate for myself. And I knew the things that they were supposed to do that they weren't properly doing. And I just had a lot of information that they didn't think I would have. And just knowing that I had the ability to change doctors or the ability to say, no, this is not what I want, or this is wrong. (Sister Circle Transcript, Pos. 38-39)

Participants also described the reactions they received from their providers when they expressed an understanding of the concepts influencing their treatment and asked probing questions:

> I feel like sometimes the questions that I ask because of my background of working in medicine kind of took the doctor by surprise. I also have a science background in terms of education. I felt like he had a sense of not being able to pull the wool over my eyes. And so it allowed me to have a different level of care because I feel like he understood that I understood if he was telling me something that was incorrect or something that was just kind of like a pass by answer. So I think in that regard it allowed me to get over the barrier of race. And then at that point we were understanding each other on an educational level. So the questions that I needed to get answered were answered right away and completely. (Sister Circle Transcript, Pos. 35-36)

Multiple participants shared similar stories of their education changing the relational dynamics with their medical providers:

> When doctors know that I have studied science, or that I am a graduate student, they change their tone. And I don't think that I've had a directly racist encounter with a doctor, but I have had them prescribe me something and tell me to take it in this way and then take this medication with it. But from my biochemistry courses, I knew that one would interact with the other. So I questioned it and I respectfully said, why would you have me take this when this does that? And that does that, is that safe? And I said, I'm just a biology enthusiast. And then they said, Oh, okay. And then they left and then came back and the doctor said, yeah, you're right. You shouldn't be taking it like that. And completely changed. Their tone

> was super apologetic, they were checking every other medication and then sent me on my way. So I don't think that doctor was being racist. I think that doctor was just a product of a racist society, went to a narrow-minded medical school and, you know, unconsciously dismissed me and tried to give me the one size fits all brush off. But once they know that you know something, the tone changes very, very quickly, very dramatically. (Sister Circle Transcript, Pos. 48-49)

While most Sister Circle participants discussed the positive impacts of utilizing linguistic capital during health encounters, one participant described how utilizing the competence gained from her health sciences education sometimes made her medical providers feel threatened, creating a negative impact. This phenomenon was affirmed by multiple participants:

> I noticed that when I'm with a doctor, if I let them know that I am aware and that I am an educated black woman, I get one of two things. I either get the support and I get the person who wants to genuinely understand and dig deeper. Like, know what I know. And they support that and I can openly express myself. Or there's a threat. And the doctor is very quick to want to get out of there - like, okay she knows too much. All right, here's your medicine or I did your exam, have a good day, that's it. So it's very eye-opening to see which one you get, you either get the support or you become a threat to that doctor. So they're no longer comfortable with being in the room because they can't fool you. They can't tell you what they want for you. So yeah, I definitely do think that there are some unique challenges when it comes to our reproductive health. (Sister Circle Transcript, Pos. 53)

Aspirational Capital. The final asset, aspirational capital, is the ability to maintain hopes and dreams for the future. Each of the Sister Circle participants were asked to describe their vision of reproductive justice. The study found that the vision of Black women students is expansive and includes elements known as the Social Determinants of Health, or non-medical factors that impact health outcomes. These factors needed to be addressed so that the participants

could move beyond “surviving” to “thriving”. They also focused on a “reclaiming” of rights and autonomy and a sense of belonging that they felt had been taken from them as Black women. According to one participant: “Reproductive justice to me means to actually be sure that these babies not only make it, but also grow” (Sister Circle Transcript, Pos. 12). Another participant explained that her aspirational vision of justice went beyond just reproductive rights:

> Reproductive justice to me really encompasses everything for a black woman. So for me, it's completely different from reproductive rights in the way that it talks about everything that black women face. So it's talking about economy, it's talking about environment, it's talking about everything under the sun, rather than just the actual birth control or just the actual doctor. (Sister Circle Transcript, Pos. 25)

Most of the Sister Circle participants also spoke of their hopes for reclaiming autonomy and decision making over their own bodies from a human rights perspective, as part of their reproductive justice vision. This is exemplified in two focus group participants’ thoughts:

> But for me, reproductive justice is reclaiming rights over our bodies. I think there's a lot of control over what a woman can and can't do, or should and shouldn't do. How she should get pregnant, how she should take care of the kids after she has them, and the whole process. It's not really decided by ourselves. And then on top of that, we have so many women who are scared to even give birth because they know how the healthcare system is. So it's really just being able to reclaim our own rights to being able to reproduce and knowing that we can do it safely and in the economy that we're in. (Sister Circle Transcript, Pos. 28)

> Reproductive justice. Wow. If I could just sum it up in a few words, I think that it's personal freedom. It's our freedom as women to have our own self autonomy, to have our freedoms and not have that pulled away by men sitting on a board who makes these decisions and choices for us. So yeah, I would just say that it's, it's freedom. It's being in control and making the choices that we as women want to make. (Sister Circle Transcript, Pos. 32)

Finally, multiple Sister Circle participants expressed a desire to feel connected to other Black women, and considered themselves to be part and working on behalf of a community inclusive of women Black women regardless of circumstance. When speaking of a woman she admired, one Sister Circle participant expressed:

> She's a part of John Hopkins and she is a gynecologist. And she does work for minorities. The women who are locked up and incarcerated. And I think that's a large population who gets forgotten about right, are women who are incarcerated. And we know that in the world even as free black women, we face a lot. So I can only imagine what those women face, who are incarcerated, who are with child. So she does a lot of important work and I admire her for that. (Sister Circle Transcript, Pos. 31)

Sister Circle participants also talked about wanting to feel like they belonged in their academic and health system environments:

> And I try to make sure that if I'm sitting at a table with everybody, I have, if not more on my plate than you do, we're at the same level. So you can't say that I don't deserve to be here. (Sister Circle Transcript, Pos. 63)

Despite using the six capitals of community cultural wealth, Black women collegians still struggled to completely overcome barriers in the academic and health environments. While the majority of survey respondents agreed that they were able to access what was available at their university (88%,), fewer agreed that they were able to secure the essentials for their education and reproductive health (71%)(Table 8). This suggests a gap between what is offered on campus and what some Black women collegians need to help realize their aspirations of reproductive justice.

Student Recommendations

Both survey respondents and Sister Circle participants were asked to provide recommendations on how universities can improve policies, practices, and campus climate to better support their reproductive health. Recommendations supported and expanded upon the institutional priorities (Table 6) indicated in the survey. The recommendations fell within four themes: support for pregnant and parenting students, reproductive education and information, comprehensive health services, and safety. Student recommendation themes, sub-themes, and sample quotes from the open field survey question and the Sister Circle are integrated and shown in Table 9 below.

Table 9

Reproductive Health Support Recommendations

Themes	Sub-themes	Sample Quotes
Supports for Pregnant and Parenting Students (24)	General Accommodations & Resources (9)	"Students who are parents should be offered additional support regardless of their circumstances."
	Childcare (7)	"Childcare is a HUGE issue."
	Lactation Rooms (3)	"The ability to leave class, pump and store milk in a refrigerator."
	Parental Leave (2)	"Provide greater support to students and families such as parental (both maternal and paternal) leave."
	Parking for Pregnant Students (2)	"Parking for students that are pregnant on campus."
Reproductive Education and Information (18)	Accessible Information, Research and Data (10)	"A page on the website that includes resources and information for pregnant and parenting students."
	Programming (8)	"Support groups and campus awareness programs, booths with information."

Comprehensive Health Services (13)	Holistic/Preventative (3)	"When they advertise their campus health centers it's all about sex, STIs, but what about the holistic approach? What about mental stability, cardiovascular fitness? Get people to think about themselves as a whole person, which contributes to reproductive health."
	Contraceptives and abortion (3)	"Access to abortion and contraceptives should be offered with minimal questions."
	Fertility (3)	"Information and affordability for egg storage and IVF treatment."
	Specialized services for under-represented populations (2)	"Specialized treatment. More emphasis on Black women's health, trans women's health without it being considered niche or taboo."
	Mental Health (1)	"Access to mental health resources should be expanded."
	Diverse Providers (1)	"It would be important to have doctors that look like us helping us on campus."
Safety (7)	Psychological Safety (5)	"Create a safe environment where students can share their concerns without fear of bias."
	Physical Safety (2)	"We don't just need emotional support we need physical support. We need to know that we can go to our classes and sleep in our dorm room."

Note: Numbers in parenthesis indicate the number of respondents that made the recommendation.

Support for Pregnant and Parenting Students. Black women students in the study emphasized the importance of having tangible and ideological support for pregnant and parenting students on campus. These two elements together contribute to a feeling of belonging and a reduction of barriers that can impact a student's ability to continue their education while pregnant or parenting. One Sister Circle participant shared how institutional attitudes impact parenting students:

> There can be this conservatism and respectability politics. There might be this focus on contraception and not getting pregnant, but then should you get pregnant people are reporting not getting the best support and almost being counseled out. Folks feel like you then become a negative representation of the university. (Source of quote?)

In the absence of policy, supportive institutional attitudes can empower individual faculty or staff to extend that support and aligned accommodations to their students. Tangible supports on campus for parenting students such as childcare, lactation rooms, parental leave, and parking were called out as a need.

Reproductive Health Education and Information. The second most common recommendation by study participants was to provide reproductive health education and information to students. Participants wanted easy access to information that could support their reproductive health, including information about resources, research, and data about Black reproductive health. They were also eager to engage with coursework, on-campus activities and community events focused on reproductive health. This type of engagement not only helped them understand how they could promote and protect their own reproductive health, but also inspired them to support the health of others. Many participants reflected on educational experiences that inspired them to pursue careers in maternal or child health, strengthening the pipeline of diverse providers:

> I also went to a PWI and there was no information about the reproductive health of African-American women. But we did have black Greek letter organizations on campus and the AKA's and Delta's put on an event together where one of the professors in the department of African-American studies facilitated a conversation and that was initially where my interest peaked. And then after doing the program in public health, of course, with our professor, you can't get through her class without understanding these types of things. So and that really gave me the true push in the direction of wanting to be an OB GYN and

> because of my own experiences through pregnancy. I kind of learned that by attending a sister circle similar to this and undergrad, where we actually had someone who did research on it, speak to us about the issues. (Sister Circle Transcript, Pos. 132-134)

Comprehensive Healthcare. Black women students had specific recommendations regarding the type of health services they wanted and how it was implemented. Study participants emphasized the importance of providing access to comprehensive health services, on campus if possible. They wanted these health centers to take a holistic approach to student health and wellbeing, including mental health. They noted that upstream, preventative efforts would be more likely to have broad participation and a positive effect on reproductive health because of the impact general health has on pregnancy outcomes. In terms of reproductive health in particular, they wanted support beyond what they considered to be a hyper-focus on contraceptives and the prevention of sexually transmitted infections. While they wanted easy access to birth control and abortion, they also wanted resources and information in support of their fertility, such as information about egg storage or genetic testing. One participant also noted the irony of not receiving a holistic approach that included support of their fertility while promoting the fertility of others in what they thought to be a predatory manner:

> The sort of marketing and advertising that they would have for their [campus health] clinic was insulting at times. For example, I would see advertisements that would say, you can get a thousand dollars for selling your eggs. And if you are a 18, 19, 20 year old girl who doesn't have money and is barely paying tuition and you see something like that, you may not have the experience and the judgment and think, I can pay for algebra next semester with that. So I did not like seeing certain things like that where I felt that students were being taken advantage of. (Sister Circle Transcript, Pos. 78)

Participants also wanted health services specific to their context and that of other under-represented groups, and wanted diverse providers that represented the study body.

Safety. The rest of the student recommendations had to do with institutions creating psychological and physical safety for their students. Participants wanted their schools to be safe environments where they could speak freely about their needs and concerns without experiencing backlash or bias. Multiple respondents emphasized the importance of privacy when implementing on-campus health services or providing reproductive health supports. While they wanted on-campus healthcare, they expressed self-consciousness around other students being aware of their healthcare needs; they offered suggestions around considerations such as location and the utilization of student workers that could make students more likely to access these much needed resources:

> If you're just going to the campus healthcare center for a regular checkup or a sore throat or something fine, but if there is a chance of you walking in and knowing the student, and you're there for something sensitive, you're probably not going to stay. (Sister Circle Transcript, Pos. 84)

In alignment to feedback about student challenges and support priorities, students also recommended that institutions attend to the physical safety of their students. Participants felt it was important to know that their administration would be proactive, responsive, and supportive regarding issues of safety, particularly in regards to sexual assault.

Summary

This study found that Black women students experienced challenges to their reproductive health in both the clinical health encounter and on campus. Almost all study participants reported challenges that they perceived to be specifically caused or exacerbated by their intersectional positionality as Black women. The study also found that Black women students harness their community cultural wealth, and employ strategies such as advocacy, in order to navigate

challenges and barriers to their reproductive health presented by clinical and academic institutions. These students have a clear perspective on the type of supports they would recommend institutions of higher education invest in to promote the reproductive health of Black women students, faculty, and staff. In the next chapter, I discuss key findings and connect them to the literature in Chapter Two. I also discuss implications and recommendations for practice and future research.

CHAPTER FIVE: DISCUSSION

The purpose of this study was to better understand the reproductive health challenges that Black women students face and their recommendations on how HBCUs could best support them. Black women students, particularly those in the health sciences, face unique reproductive health challenges due to their intersectional positionality while spending a significant amount of their reproductive years in the academy. Their academic homes therefore can have great influence on factors impacting their reproductive health.

This study explored two research questions: 1) *What challenges do Black women collegians face regarding their reproductive health?*; and 2) *According to Black women collegians, how can HBCUs better support their reproductive health?* Using a sequential, transformative, exploratory methodology I obtained first hand perspectives through a Sister Circle focus group and a survey. My sample included Black women students and recent alumni in the health sciences. There were 11 participants in the Sister Circle focus group and 19 respondents to the survey. The theoretical frameworks I used to analyze the data were Black Feminist Epistemology and Critical Race Theory.

In this final chapter, I summarize and interpret the study findings, explore connections to existing literature, and discuss implications for practice and recommendations. Then, I consider limitations of this study and identify opportunities for future research **before concluding with a personal reflection.**

Summary of the Findings

Within this study, I examined the reproductive health challenges and responsive institutional support recommendations of Black women students. The purpose of the study was

to foster greater understanding of this population's needs so that institutions can better support the reproductive health of Black women students, ultimately leading to better health and academic outcomes. The study centered the perspectives of Black women students because, despite having lived experience that gives them greater insight into effective institutional responses, their perspectives on this topic are not often discussed in the literature. My data confirmed and expanded much of the literature about reproductive health challenges in an academic and health system context, and how access to quality supports can impact reproductive health decision making. Through analysis I was able to connect the data to the theoretical frameworks of Black Feminist thought and Critical Race Theory.

My first research question sought to explore *What challenges do Black women collegians face regarding their reproductive health*? Through this study I was able to confirm that Black women collegians have an intersectional experience that impacts their ability to support their reproductive health. Challenges faced by this population were primarily driven by the lack of access to quality care and support. Within the healthcare system, Black women collegians encountered implicit and explicit bias or providers uninformed about the unique context of Black reproductive health. On campus, Black women collegians were impacted by institutional attitudes that influenced the university's approach to pregnancy, parenting, and campus safety. This often resulted in limited resources on campus, or when available, students having difficulty finding transparent information that would allow greater utilization.

Study data allowed for a multi-layered response to my second research question, *According to Black women collegians, how can HBCUs better support their reproductive health?* In alignment with my goal of centering and elevating the perspectives of Black women students, I was able to gather data about the values and vision of reproductive justice that served

as a foundation for their own strategies to overcoming reproductive health barriers and their priorities and recommendations for institutional support. This study found that Black women students felt the need to reclaim reproductive rights and autonomy and had a comprehensive view of the health and environmental factors needed to thrive. They also sought a sense of belonging in a variety of contexts. To address barriers, I found that Black women students harness an array of community cultural wealth assets, particularly linguistic, navigational, and resistance capital. If implemented, their priorities and recommendations for institutional support would limit the need to consistently draw upon and deplete these forms of capital. Black woman students prioritized access to transparent information, access to reproductive health services on campus, access to mental health resources, health insurance, DEI policies, and support around safety and sexual assault as most important to supporting their reproductive health. They also recommended that HBCUs have ideological and tangible supports for parents and comprehensive health care on campus as well as education and training on Black reproductive health.

Interpretation of the Findings

In this section, I discuss the findings related to the literature in Chapter Two. There were two theoretical frameworks used to design the study and analyze the data. The first was Black Feminist Thought, which is inclusive of both Black reproductive justice and intersectionality frameworks. The second was Critical Race Theory, of which Community Cultural Wealth serves to utilize the theory in quantitative analysis. This study's findings expand the literature about the experiences, perspectives, and needs of Black women students, particularly those in the health sciences.

Reproductive Health Encounters of the Third Kind

The Black women students in this study collectively agreed that their positionality as Black women impacted their experiences in the healthcare system. Affirming Prather et al. (2018), study participants shared stories of being racially profiled during routine reproductive health visits and enduring dismissive or antagonistic interactions with medical providers, all of which layered trauma onto emergent or chronic medical conditions. In an effort to mitigate these tendencies and secure quality treatment, Black women students in the study reported drawing upon their health sciences education to question, advocate and appeal to their providers on a collegial level. Using familiar language to engage their providers seemed to signal a level of understanding and credibility that often shifted the nature of the dialogue and subsequent treatment. When providers realized that the Black women students in their care had a working comprehension that allowed them to perceive inadequacy, they often responded by providing more thoughtful and proficient engagement, allowing the BWS to "get over the barrier of race" and achieve a second, higher quality type of healthcare encounter.

Notably, data from this study revealed a third type of healthcare encounter. Some participants reported that their health sciences background could actually backfire, creating a negative impact on their ability to access quality care. In these situations, a provider would be surprised by the level of health or science competence displayed by the BWS, but instead of adapting and engaging on that level or providing higher quality care, the provider felt threatened. Faced with a higher level of accountability, the provider would become uncomfortable and quickly end the visit.

This third kind of health encounter illustrates the catch-22 that Black women face in terms of how they are perceived and the treatment they receive as a result. Black women are

often stereotyped as being uneducated, unengaged, and “non-compliant” in their own healthcare, leading to them being dismissed and receiving subpar care. Yet if they reveal their competence in order to advance their health, they can face a backlash, forcing them to decide whether to “go along to get along” and dumb down the dialogue to make their provider comfortable in the pursuit of equitable care.

Facing the challenge of acquiring higher education only to be penalized for it when activating that linguistic capital can be demoralizing. These experiences are then carried into their professional lives, where the competence of Black women continues to be perceived as threatening even when they become medical providers themselves and join the health team. The desire to protect themselves and others like them from implicit and explicit bias, coupled with the pressure to perform as a way of seeking acceptance and credibility, can lead Black women to take on the additional load of meeting the needs of patients and students of color. One Sister Circle participant described this in her comments about stress and the pressure to perform:

> I have a black woman OB and she was talking about the additional burdens that she takes on in her role, such as supporting residents. All of the black patients want to work with her. She's incredibly busy. And that means that she's usually late and delayed in her schedule, which then creates another layer of scrutiny within her practice. But it's because she has this expectation of being all things to everyone. And so that doesn't really stop. Once you get out of the academic environment, it's something that we're still dealing with professionally across the board.

This illustrates the importance of Institutions of Higher Education paying special attention to the topics of implicit and explicit bias in their curriculum as they train medical providers. These insights are also valuable and instructive for those IHEs that want to better support the pipeline

of Black women providers, to help alleviate the pressure these interactions create, through on-campus access and support.

Stress, Community Cultural Wealth, and Health

In response to reproductive health challenges, this study found that Black women students deploy all six forms of Yosso's (2005) Community Cultural Wealth. Described as the assets students of color bring to schooling, community cultural wealth counters dominant notions of the cultural capital theory of social reproduction (Bourdieu, 1986), which takes a deficit minded assessment of the culture of marginalized students. While this study found that Community Cultural Wealth is masterfully deployed by Black women students to bolster them against oppressive or challenging conditions, this does not mean that these students do not need robust institutional support. Black women have historically been positively stereotyped as being incredibly resilient "superwomen" that can "make a way out of no way". However, consistently relying on navigational, resistant, and other forms of capital to secure needed resources requires additional effort that can drain the energy of students, waste time better used focused on academics or family life, and as one Sister Circle participant said, "make you feel like it's not actually something that's for me".

Black women, including those in academia, have also become even more vocal in their pushback against the celebration and burden of labels such as "resilient" and "strong". An example of this social movement is the Nap Ministry, which promotes the idea of rest as resistance to a capitalistic culture that deifies striving and accomplishing at all costs—the cost being general well-being, mental health, and the ability to thrive. As one of their popular messages states: "Grinding keeps us in a cycle of trauma." In this same vein, Allen et al. (2019) used the Superwoman Schema, a culture-specific framework that describes the different

dimensions of the Black superwoman persona, to explore whether Black women's coping strategies were protective or caused greater harm. As part of a larger study examining the linkages between social and environmental stressors and health, their research found that having an intense motivation to succeed despite barriers and limited resources is detrimental to health, and can exacerbate the negative health effects tied to the chronic stress associated with racial discrimination.

Requiring Black women students to rely on their community cultural wealth, advocate with university leaders, scour websites, and repeatedly approach staff in order to secure institutional support not only puts their matriculation at risk, but also negatively impacts their overall health.

Reproductive Justice Visions from the Gap

The vision of reproductive justice articulated by Black women students in this study is inclusive, grounded in human rights, and centered around the act of "reclaiming". The reclaiming that Black women students call forth in their visions of reproductive justice comes in multiple forms—the reclaiming of rights, autonomy, subjugated knowledge, voice, belonging, and self-definition. As it can be argued that Black women today have experienced more of the benefits of progress in these areas than their predecessors ever have in the history of the United States, what they are reaching back for is a mode of being that is yet to be achieved in this country, one that instead connects to a transnational, diasporic vision of reproductive justice.

The Black women students in this study also establish a comprehensive, holistic view of their reproductive health and the supports needed to protect and promote it. That they articulate their health needs in this way makes them more likely to take a holistic approach when supporting the health of their future patients in the health system. This illustrates the positive

impact of cultivating a pipeline with those who have a lived experience concordant with that of their patients.

It is important to acknowledge that these Black women students represent the future health services workforce and, as Black women professionals, will likely face what Patricia Hill Collins, mother of Black Feminist Epistemology, calls “mammification”. Mammification is the phenomenon of Black women professionals being expected to fix systems which are in crisis, often in high visibility positions that “require them to serve white superiors while quieting the natives” (Collins, 2009). Black women professionals, particularly in health care and other social services, are expected to take on a heavier burden of responsibility on top of facing additional challenges with bias and other factors. This has also been noted as a “minority tax’, or a set of extra, usually uncompensated duties placed on minorities, often in the name of efforts to achieve diversity.

It is sad, ironic, and unjust that these women—who face an undue burden to support the health of others by standing in the gap of systems not designed to promote the health of Black communities—must accept subpar healthcare as part of their decision to matriculate within the academy. As time at IHEs usually is also during the prime of their reproductive lives, the lack of access to quality care and supports can mean putting their own reproductive choices and fertility in jeopardy. Indeed, multiple participants in this study described delaying starting their families while pursuing their degrees because having children while lacking quality healthcare did not align with their value of “responsible parenthood”. Further, Black women face disparate rates of reproductive health diagnoses and outcomes. For example, almost 25% of Black women between 18 and 30 years old have uterine fibroids compared to only six percent of White women, and by age 35 the rate increases to 35%. Fibroids are non-cancerous tumors that can cause pain, anemia,

intermittent bleeding, fatigue, increases in urinary frequency, fertility problems, and pregnancy complications. They are associated with risk factors including stress (Giuliani et al., 2020). These women, highly educated, economically stable, and connected to familial and community networks of support would otherwise be considered very well positioned to become parents themselves.

In addition to facing disparities in Black infant and maternal deaths, a disparate lack of support while receiving their medical training, disproportionate burdens as professionals, and implicit and explicit bias when receiving their own medical care, Black women also face a disparity in access to fertility treatment. A study from National Health Statistics (Chandra et al., 2014) found that while Black women have almost twice the rates of infertility as White women, almost twice as many White women access medical care for fertility-related concerns than Black women.

This underlines the need for a reproductive justice approach (one that encompasses the fundamental rights to have a child, not have a child, and parent children safely) to Black reproductive health care and supports, especially on university campuses. What Black women are asking for is the support needed to self-actualize as they stand in the systemic gaps - for themselves, the community, the health system, and the nation.

Implications

This study has implications for Black women students, Institutions of Higher Education, HBCUs, and change agents in the field of reproductive health. Findings from my study revealed that Black women students face unique reproductive health challenges and employ various cultural assets and strategies to address barriers. The participants of this study were able to provide a clear vision for reproductive justice and recommendations for institutional support that

is grounded in their lived experience and enhanced by their health sciences education. Because there is minimal research on the reproductive health needs and perspectives of Black women students, this study can be used to assist with practical applications in higher education administration, the design and implementation of public health interventions targeting Black students and middle-class women, and community partnerships focused on reducing disparities in Black reproductive health. This research also helps to fill gaps in the literature on the experience of Black women students at HBCUs. Understanding the challenges of Black women students and their perspectives can support the ability of their academic homes to support their matriculation, health, and overall wellbeing.

The current socio-cultural, political and economic context makes deeper understanding of the needs of this population even more urgent. The COVID-19 pandemic has exacerbated the racialized stressors that Black women typically face, and Black women have been disproportionately impacted. Black women are more likely to work in frontline industries than their white counterparts, and are infected and die from COVID-19 at more than three times the rate of White men (Rushovich et al., 2021). Black women are either the role or main provider for 80% of Black families and also experienced the steepest drop in labor force participation while having the slowest job recovery since January 2020. Despite federal eviction moratoriums, Black women are most at risk of losing their housing during the pandemic and about 30% are behind on rent, which is twice the rate of White men and women (Smart, 2021).

Simultaneously, reproductive rights are facing the biggest challenge since Roe vs. Wade. If the landmark decision is overturned or gutted, Black women will be disproportionately harmed. Overrepresented in low income and Southern communities where states are most likely to ban abortion if Roe is overturned, Black women will face needing to travel the distance of

multiple states to access abortion, potential criminalization, or perpetuating cycles of poverty if forced to continue unwanted pregnancies (Rahman, 2021).

All of this occurs during the aftershocks of national upheaval and resistance in response to the murders of George Floyd, Ahmaud Arbery and Breonna Taylor, the latest in tragic line of Black victims of state sanctioned violence. The Black community's collective mourning contributes to both immediate, negative impacts on mental health as well as multi-generational trauma (Legewie, 2019).

In light of this context, I argue that institutions of higher education have an institutional responsibility to better understand and standardize the practice of responding to the racialized stressors impacting Black women students in an effort to reduce barriers to academic participation and success – including those regarding reproductive justice.

If academia has an institutional responsibility to attend to issues of reproductive justice, I suggest that HBCUs have a moral, ancestral imperative to do so. As presented in the study's literature review, HBCUs were founded with the purpose of supporting Black students, and represent the leading models of holistic student success for Black women (Commodore, et al. 2018). A targeted investment in transforming HBCUs into sites of reproductive justice cannot be considered an investment just in Black women, but an investment in the Black community and diaspora as a whole.

This study was designed in part to help inform strategies that institutions of higher education, particularly HBCUs, can employ to better support the reproductive health of Black women students. Considerations for practice grounded in this study's findings are below.

Listen to Black Women—and Invest in Them Too

I suggest that any attempt to center reproductive justice in institutional and community practice begin with building relationship with the reproductive justice movement and collective agenda. Co-created by more than 30 reproductive justice organizations nationwide, *The Black Reproductive Justice Agenda* (In Our Own Voice, 2021*)* serves as a comprehensive resource to understand the current issues and proactive policy solutions prioritized by Black women.

Interventions in support of Black women on campus should elevate their voices and invest in their leadership and development. This is essential when attempting to shift policy and practice to meet their needs. The phrase "nothing about us without us" is often used to convey the idea that policies should not be decided without the full participation of the populations impacted by them, particularly marginalized populations. Research shows that involving impacted populations in decision making during planning, design, governance, and delivery phases of health interventions can improve their effectiveness (O'Mara-Eves et al., 2015). As affirmed in this study, Black women have been leveraging their cultural wealth in order to create their own informal and formal networks of support, among other solutions, as a necessity when systems failed to do so for generations. Acknowledging this lived experience, wisdom, and expertise by empowering Black women on campus to influence the environment they live, work, and learn in not only benefits them but has benefits for the broader campus community.

Efforts to better support the reproductive health of Black women on campus can begin with seeking the voices of Black women students, faculty, and staff to learn about their experiences, needs, values, and recommendations. Ideally this needs assessment would combine quantitative and qualitative data to get a more complete understanding that can better inform an effective response. This study serves as a model for the type of insights that can be gained. Black women students, faculty, and staff could then be positioned to lead funded, participatory efforts to design and implement sustainable solutions that incorporate double loop learning to allow the response to evolve as needs change.

In addition to elevating the voices of Black women in improving campus policy, practice, and climate, HBCUs can continue to elevate their voices and efforts in building the field as thought leaders. Beyond supporting their own student researchers and faculty, HBCUs have a history of supporting the scholarship of Black women leaders in the community that they can expand upon. Patricia Hill Collins (2009) reminds us that Black women outside of academia have long served as intellectuals by representing the interests of Black women as a group. Community birthworkers, activists, and those leading and supporting community-based organizations and agencies all have expertise to contribute that can help form a new vision of Black reproductive care within the health system, aligned to the principles of reproductive justice. HBCUs can support their ability to collaborate with women in the academy on the creation and dissemination of oppositional knowledges around reproductive health and justice that benefit both Black women and the community as a whole. The connecting of students and faculty with community members is also a form of network weaving, creating lasting relationships that strengthen community resilience and help make the systems that students transition to more responsive to community needs.

Provide Tangible Resources to Pregnant and Parenting Students

In this study participants recommend that HBCUs build systems to provide tangible, easily accessible information and supports for pregnant and parenting students. This subgroup of students is becoming an increasingly larger percentage of students, particularly at the graduate level, and they face a unique set of challenges that can impact their academic performance (Hotchkins, 2017; Patterson-Stephens et al., 2017; Rogers et al., 2019). Like their "traditional" student peers, they are expected to balance schoolwork with extracurricular activities such as internships, while having less time because of their additional responsibilities. They also face the same challenges as other parents, such as childcare and affordable housing, while often having fewer financial resources to manage them as full-time employment can be an untenable burden while attempting to matriculate. HBCUs can provide resources to help mitigate these challenges and reduce barriers to full participation by this student population.

Support of pregnant and parenting students is most effective when it is both top-down and bottom-up. Administrative and academic leadership should set a tone that creates a sense of belonging and commitment to their success as students. This ideological support should be reflected in campus policies and practices such as parental leave. It's important to create mechanisms for students to share feedback on their experiences and needs so that supports can evolve along with the local context. The participants in this study were vocal about the kinds of resources that would improve their academic experiences and outcomes. Transparent, readily available information about the resources available and how to access them is essential. Affordable childcare is a challenge for most parents, and providing this resource on campus for students, faculty, and staff can be transformative. Other on campus supports to consider include lactation rooms, family housing, and accommodations such as accessible parking for pregnant

students. Some universities have provided resource rooms where parenting students could receive free or discounted food and care items such as diapers. When unable to provide certain resources directly, identifying staff to support students with resource navigation and establishing partnerships to support access for students can help ensure students have essential resources.

Ensure Student Access to Comprehensive Health Care, Ideally on Campus

On-campus or community-based care centers that serve as hubs for comprehensive health care and training can help meet the needs of students as both clients and learners. As noted in this study, students benefit from having services available to them the entire school year, including summer sessions when they may not technically be enrolled. HBCUs can create partnerships to promote easy referrals and continuity of care for services not available on campus. Care centers with on-staff community health workers that are knowledgeable about how to navigate local services and systems such as Black Infant Health Programs of supplemental nutrition programs tasked with increasing student access and utilization can be an important resource. Ideally this navigational support would be inclusive of those services impacting the social determinants of health, such as food and housing.

Establish an Academic Center Focused on Black Reproductive Health

In order to effectively respond to the reproductive health challenges of Black women students and the broader community, HBCUs can establish university based, academic centers focused on Black reproductive health like those at Morehouse University and Charles R. Drew University of Medicine and Science. These centers would lead collaborative education, research, service, and clinical activities with the ultimate goal of improving Black reproductive health outcomes and experiences. Centers should consider having engagement protocols in place that allow them to be continuously aware of the evolving needs of students and community.

Participatory action research methodologies should be prioritized to allow for iterative cycles of research, action, and reflection to be embedded in the work of the center. Through the center, university leadership can articulate their support of the reproductive health of their students, including pregnancy, parenting, and campus safety, and partner to create and provide transparent information about supportive policies, practices, and resources.

Build the Black Reproductive Health Provider Pipeline

In alignment with the prolific history of HBCU pipeline development in STEM and the health sciences, HBCUs should consider making targeted commitments and investments in the pipeline of Black reproductive health providers and birthworkers. The much needed integration between community birthworkers and hospital based providers can begin on campus, with Schools of Nursing creating midwifery training programs and extension programs supporting certificates in doula care and lactation education. HBCUs can create opportunities for all students to engage around Black reproductive health by infusing related content into course curriculum and creating internship and research opportunities to support pipeline development. All students in the health sciences should be trained on structural competency, public health praxis, and the applications of change management in health to support their ability to impact health at the systems level.

University supported care centers can also serve as sites of community education, provider training, and workforce development. Community members, community health workers, medical students, and established medical providers are all in need of education and training around reproductive health issues such as disparities in birth outcomes, the risks associated with stress and hypertension, the benefits of lactation, and other topics. Aspiring providers such as residents, midwifery students, and lactation consultant trainees that need

clinical hours can also gain valuable experience supporting care. Providing learning opportunities helps these community stakeholders take better care of themselves and each other.

Limitations

While the researcher worked diligently to ensure the trustworthiness of this study, there are some limitations. The study used a convenience sample of Black women students who self-selected to participate. It is possible that these students had a greater interest or richer lived experience in Black reproductive health issues. Self-selection bias may impact the internal reliability of the study (Creswell, 2014), limiting the generalizability of the data, particularly in terms of reproductive health challenges to the general population of Black women students. Use of a random sample would have strengthened the generalizability of the data.

Recruitment for this study occurred during the COVID-19 pandemic, which meant that the Sister Circle, which is a qualitative data collection method best implemented in person, was instead conducted online via Zoom. It is likely that the pandemic also had a negative impact on the number of Sister Circle participants and survey response rates. The small sample size of the study is another important factor limiting the generalizability of the data.

Because each of the study participants were reflecting on experiences across various university campuses, the resulting data on challenges is not generalizable to any particular type of institution. Data in response to Research Question 2 and this researcher's recommendations may not be applicable to every university context; factors such as institution size can impact the types of resources and supports they are able to provide. Despite this, the recommendations still represent important considerations for universities hoping to better support the Black women that live, work, and learn on their campuses.

Finally, my personal bias as a researcher may be perceived as a limitation to the validity of the study. As a Black woman doctoral student who was pregnant and gave birth during my graduate studies, I identified with the perspectives shared in the study. It is possible that my own experiences may have shaped elements of the study design and my interpretation of the data. However, I believe that my own positionality and lived experience allowed me to ask the right questions, quickly build rapport with participants, and provide a nuanced interpretation of the findings, constituting a productive use of researcher bias (Maxwell, 2005).

Future Research

There are a number of ways that future research can help build a more comprehensive understanding of the reproductive health challenges and needs of Black women in the academy. To build upon the findings of this study and address limitations, future research can focus on the same research questions at a larger HBCU, or across multiple HBCUs using a random sampling technique. Important perspectives to consider that were not included in this study are Black male students, and Black faculty and staff of all genders. The reproductive health of these groups are also impacted by the policies, practices, and climates of their academic homes, and their experiences and needs can be similar to or differ from those of Black women collegians in multiple ways. Their perspectives should also be considered when activating HBCUs as sites of Black reproductive justice. To this end, another research recommendation is to modify the methodology of this study to a participatory action research project that includes faculty and staff in addition to students across genders. This would provide more comprehensive data, while increasing the likelihood of recommendations being implemented at the institution at the conclusion of the study.

Conducting this research in a new context can also add value to the literature. Replicating this study at a PWI would allow for comparing the reproductive health challenges and recommendations of Black women collegians within that environment with those of Black women collegians at HBCUs, or with women students of other races at the same institution. It would be helpful for institutions to better understand if the needs and priorities of these groups are the same, or perhaps differ in preferred implementation or other aspects.

Last, a deep dive into how a student's health sciences education impacts their reproductive health encounter in terms of navigation, experience, and outcomes would be beneficial to both the academic and health systems.

Conclusion

The findings from this study provide valuable insight into the reproductive health challenges of Black women collegians. This exploration centered the perspectives of the students themselves to understand how Institutions of Higher Education, and HBCUs in particular, can better support their reproductive health needs. The findings affirmed existing literature about the challenges women, pregnant and parenting students face navigating campus environments as well as the experiences of Black women in the health system. By investigating the intersectional experiences of Black women collegians in both the health and educational systems, this study broadens our understanding of how these domains work in concert to impact the reproductive health of Black women collegians while identifying the assets they employ to overcome barriers. It privileges the voices of these Black women collegians when elevating recommendations that all universities can implement. In celebrating the prolific historical and present-day role that HBCUs play in nurturing Black women collegians and the medical provider pipeline, this study acknowledges that they may be best positioned to model how the Black women collegians

preparing to stand in the gap of our social systems can actively be supported to achieve reproductive justice in academic settings and beyond.

As such, this study was truly a labor of self-love. I believe in education as a liberatory praxis and undertook the doctoral process as a step in my efforts to help free myself and others. I was unapologetic about focusing my research on a topic that reflected my current context of working to address Black infant and maternal mortality while becoming a mother myself. I recognize the ability to dedicate time to learning about myself and my sisters, centering our needs while also being in a professional position to use that data to create change as a privilege bordering on luxury.

What is ever-present in my work, my life and the data in this study is the physical and mental impacts of racialized stress and the opportunities for environments and situations to exacerbate or mitigate that stress. The importance of institutional attitudes and tangible support could not be understated when I had the audacity to start a family and change jobs in the last year of my doctoral program, which happened to be during a global pandemic. As a contrast to what many have experienced as documented in the literature, my program director and committee chairs supported me without hesitation. I'm not sure I would have persevered without their explicit belief in my capabilities and ongoing contributions to my evolution as a scholar. Even with this essential support, I struggled in ways I wouldn't have if I had access to childcare and more time to write, didn't have to choose between joining protests against police brutality or analyzing data, or have to maintain full time employment in order to cover both household expenses and tuition. Continuing to push through the layers of a traumatic socio-political climate, the sleepless nights of motherhood, the mental demands of scholarship, while trying to transform systems professionally has beauty in its complexity, and joy in its moments of synergy

and success, but it's also exhausting and fraught with uncertainty. This process has given me a deeper understanding of myself, but also my co-conspirators, the Black women students, medical providers, CBO-leaders, and birthworkers that are preparing for the work, doing the work, or struggling to retire from the work. It has led me to think more critically about the sustainability of Black women in the reproductive health workforce. What are the compounding effects when "the work" is ourselves, our families, our ability to have a future? As we push our bodies and minds against the boundaries of the systems we are trying to dismantle and transform, how do we continuously find respite, heal, create a sense of belonging, and achieve the reclaiming of autonomy, joy and fearlessness that participants invoked in the study? I put my faith in our collective will and ability, with the support of our beloved HBCUs, to make this vision a reality and grow our families in peace while doing so.

"The Black mother within each of us - the poet - whispers, I feel, therefore I can be free"

Audre Lorde

APPENDIX A

Email Recruitment for Focus Group

Greetings!

My name is Brandi Sims. I am a doctoral student under the direction of Dr. Cecilia Rios-Aguilar in the Department of Education at The University of California Los Angeles. I am conducting a research study entitled **Activating Institutions of Higher Education in the Fight Against Black Infant and Maternal Mortality**. I would like to invite you to participate in this study.
The purpose of this study is to understand the perceptions of Black women graduate students on how universities can support Black reproductive health through policies, practice, climate, education and training. This study is significant because infant mortality is considered a key global indicator of population health and general well-being. Egregious racial disparities in infant and maternal death persist across the nation, and Institutions of Higher Education (IHEs) are uniquely positioned to support community efforts to address them. IHEs serve as learning and working environments for a growing number of Black women students, employees and faculty; educators of the health workforce tasked with supporting reproductive health; and field builders in terms of research and the dissemination of information. Despite this unique and multi-layered role, there is limited research on the ways IHEs can support Black reproductive health. Using a conceptual framework grounded in reproductive justice and critical race theory, this study will explore the perceptions of Black women in higher education on how IHEs can be activated to better support Black reproductive health.

The only criteria for inclusion are that you are a Black woman student in the health sciences. If you agree to participate, you will only be asked to give three hours of your time between November-December 2020. Your participation will involve:

- Take part in a 45-60 minute audiotaped pre-interview at a date and time that is convenient for you via Zoom. The purpose of the pre-interview is to provide context on the study, discuss consent and gather demographic information.

- Participate in one 90 minute audiotaped sister circle (focus group) at a date and time that is convenient for all participants. The purpose of the sister circle is to discuss perceptions of how institutions of higher education can better support the reproductive health of their Black students and the broader community through campus policies, practices, climate, education and training.

- You will also be invited to respond to a survey dissementated to all Black women students on campus, which will be informed by this sister circle/focus group.

You may choose not to be audio/video recorded and still be able to participate in the study. All information obtained will be confidential. Only the researcher conducting this study will have access to the data from this study. The results of the research study may be published, but your name or any identifying information will not be used. In fact, the published results will be presented in summary form only. I will utilize pseudonyms to describe participants and the schools in which they teach in order to maintain confidentiality. There are no known risks associated with this research. The benefits include learning from the experiences of peers within your graduate institution, making social connections, and supporting the development of a framework for colleges and universities attempting to better support the reproductive health and academic success of Black women students.

Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. If you decide to withdraw from the study, the information that can be identified as yours will be kept as part of the study and may continue to be analyzed, unless you make a written request to remove, return, or destroy the information.

If you have any questions about this research project, or would like to participate, please feel free to contact me at (818) 631-2241 or send an e-mail to brandisims@g.ucla.edu.

APPENDIX B

Sister Circle Protocol

Focus Group Questions

1) What does reproductive justice mean to you?
2) Do you think that your role as a Black woman within higher education presents unique challenges in promoting your reproductive health? How?
3) What about IHE policies, practices, supports and climate do you find to be most stressful?
4) From a reproductive justice frame, what are the IHE policies, practices, supports or climate issues that might limit your ability to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities?
5) In what ways, if at all, do you think IHEs support your reproductive health?
6) What change would have the greatest positive impact on your reproductive health from a reproductive justice frame?
7) What has been your experience with health services training around reproductive health?
8) What information, education or training around disparities in Black infant and maternal health have you received through your training? Did you find it useful/effective?
9) What change in health services training do you think would have the greatest positive impact on medical providers' ability to support the reproductive health of their Black patients?
10) What role do you think Black women students, faculty and employees should have in promoting and supporting Black reproductive health at IHEs?
11) What additional comments do you have about ways we can activate HBCUs in support of Black reproductive health?

APPENDIX C

Survey Information Sheet

University of California, Los Angeles

ACTIVATING INSTITUTIONS OF HIGHER EDUCATION IN THE FIGHT

AGAINST BLACK INFANT AND MATERNAL MORTALITY

INTRODUCTION

Greetings! My name is Brandi Sims, and I'm a doctoral student at UCLA. Thank you for your interest in participating in this study. You are being invited to participate in a research study entitled **Activating Institutions of Higher Education in the Fight Against Black Infant and Maternal Mortality.** This study is being conducted by myself as the Principal Investigator and Faculty Sponsor Dr. Cecilia Rios-Aguilar from the Department of Education at the University of California, Los Angeles. You were selected as a possible participant in this study because of your relevant experience as a Black or bi-racial woman student or alumni in the health sciences. Your participation in this research study is voluntary.

WHY IS THIS RESEARCH BEING DONE?

Infant mortality is considered a key global indicator of population health and general well-being. Egregious racial disparities in infant and maternal death persist across the nation, and Institutions of Higher Education (IHEs) are uniquely positioned to support community efforts to address them. IHEs serve as: learning and working environments for a growing number of Black women students, employees and faculty; educators of the health workforce tasked with supporting reproductive health; and field builders in terms of research and the dissemination of information.

Despite this unique and multi-layered role, there is limited research on the ways IHEs can support Black reproductive health. Using a conceptual framework grounded in reproductive justice and critical race theory, this study will explore the perceptions of Black women in higher education on how IHEs can be activated to better support Black reproductive health.

HOW LONG WILL THE RESEARCH LAST AND WHAT WILL I NEED TO DO?

Participation will take a total of about fifteen minutes. If you volunteer to participate in this study, the researcher will ask you to do the following:

- Complete and submit an online survey with questions related to your opinions on supporting Black reproductive health at university campuses.

ARE THERE ANY RISKS IF I PARTICIPATE?

Because all information obtained will be confidential there are no foreseeable risks as a result of your participation in this study. You may choose not to answer any questions asked in the survey that you are uncomfortable addressing. Additionally, you may stop completing the survey and withdraw from the study at any time.

ARE THERE ANY BENEFITS IF I PARTICIPATE?

You will not directly benefit from your participation in the research. The results of the research may serve as a framework for colleges and universities attempting to better support the reproductive health and academic success of Black women students.

What other choices do I have if I choose not to participate?

While this study draws from a student sample, participation is not required. Your alternative to participating in this research study is to not participate.

WILL I BE PAID FOR MY PARTICIPATION?

By participating in this study, completing the survey and including your email address at the end of the survey, you will be entered into a drawing for two $50 Amazon gift cards (2 winners). Participation in the study is not required in order to participate in the raffle, you may use the link to enter without completing the survey. If your name is drawn, you will receive a gift card in the amount of $50 within 14 days of the closing of the survey. The approximate chance of winning is no less than 1 in 200.

HOW WILL INFORMATION ABOUT ME AND MY PARTICIPATION BE KEPT CONFIDENTIAL?

The researchers will do their best to make sure that your private information is kept confidential. Information about you will be handled as confidentially as possible, but participating in research

may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured. As with any use of electronic means to store data, there is a risk of breach of data security. Study data will be de-identified and physically and electronically secured. We will not ask you any personally identifying information as part of this study. For those reasons, your participation in this study is considered to be anonymous.

Use of personal information that can identify you:

The data collected in this study will be coded to protect your confidentiality. The code key will be destroyed within one year after data collection has been complete (around January 2022).

How information about you will be stored:

Additionally, data collected will be stored on a password protected computer until it can be transferred to external storage devices (i.e. USB drives, external hard drives). Once transferred, these external storage devices will remain locked and in the possession of the researcher.

People and agencies that will have access to your information:

Only the researcher will have access to data. Researcher will not release identifiable results of the study to anyone other than individuals working on the project without your written consent unless required by law.

The research team, authorized UCLA personnel, and the study sponsor may have access to study data and records to monitor the study. Research records provided to authorized, non-UCLA personnel will not contain identifiable information about you. Publications and/or presentations that result from this study will not identify you by name.

How long information from the study will be kept:
Information from this study will be kept for three years.

USE OF DATA FOR FUTURE RESEARCH

Your data including de-identified data may be kept for use in future research.

WHO CAN I CONTACT IF I HAVE QUESTIONS ABOUT THIS STUDY?

The research team:
If you have any questions, comments or concerns about the research, you can talk to the one of the researchers.

Principal Investigator:	Brandi Sims Department of Education University of California, Los Angeles brandisims@g.ucla.edu

Faculty Sponsor:	Dr. Cecilia Rios-Aguilar Associate Dean for Equity & Inclusion Professor, Department of Education University of California, Los Angeles Rios-aguilar@gseis.ucla.edu

UCLA Office of the Human Research Protection Program (OHRPP):

If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the UCLA OHRPP by phone: (310) 206-2040; by email: participants@research.ucla.edu or by mail: Box 951406, Los Angeles, CA 90095-1406.

WHAT ARE MY RIGHTS IF I TAKE PART IN THIS STUDY?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled.
- You may refuse to answer any questions that you do not want to answer and still remain in the study.

You may keep a copy of this information for your records.

APPENDIX D

Survey Protocol

Start of Block: Information & Consent

Q1 Greetings! You are being invited to participate in a research study entitled **Activating Institutions of Higher Education in the Fight Against Black Infant and Maternal Mortality.** This study is being conducted by Brandi Sims as the Principal Investigator and Faculty Sponsor Dr. Cecilia Rios-Aguilar from the Department of Education at the University of California, Los Angeles. You were selected as a possible participant in this study because of your relevant experience as a Black woman student or alumni in the health sciences. Participating in the study involves completing this survey which will take 10-15 minutes. Your participation is voluntary. If you join the study, you can change your mind later and quit at any time. You can skip or choose not to answer any questions in the study. There will be no penalty if you decide to not take part in the study or quit.

This survey aims to understand the challenges Black women students face when promoting their reproductive health and their perspectives on how academic institutions can better support them. Your trust, and the data and stories you share in this survey are valued. The data for this study will be kept anonymous. No published results will identify you, and your name will not be associated with the findings. This study has been certified as exempt from the need for review by the University of California, Los Angeles Institutional Review Board. If you have any questions, comments or concerns about the research, you can talk to the one of the researchers: Principal Investigator, Brandi Sims, Department of Education, University of California, Los Angeles at brandisims@g.ucla.edu; or Faculty Sponsor, Dr. Cecilia Rios-Aguilar, Associate Dean for Equity & Inclusion and Professor, Department of Education, University of California, Los Angeles at Rios-aguilar@gseis.ucla.edu. If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the UCLA OHRPP by phone: (310) 206-2040; by email: participants@research.ucla.edu or by mail: Box 951406, Los Angeles, CA 90095-1406.
You can decide if you want to participate in the study or not. By choosing Yes, you are providing your informed consent to participate in the study. Thank you!

Q3 Do you self-identify as a Black, African-American or bi-racial (bi-racial including Black/African-American) woman?

- ○ Yes (1)
- ○ No (2)

Q4 If you would like to participate in the raffle for a $50 gift card please insert your email address below. Two winners will be chosen. Email address data will be de-coupled from the rest of the survey data so that survey responses will be anonymous.

_____

Q5 Do you consent to take this survey?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If Do you self-identify as a Black, African-American or bi-racial (bi-racial including Black/African... = No

Or Do you consent to take this survey? = No

Q6 While you are not eligible to participate in this study, we greatly appreciate your interest and support.

Skip To: End of Survey If While you are not eligible to participate in this study, we greatly appreciate your interest and... Is Displayed

End of Block: Information & Consent

Start of Block: Student Experiences with Reproductive Health

The following questions capture experiences with reproductive health, including challenges. We appreciate the sensitivity of this information and assure you that responses will be anonymous and confidential. Thank you for your trust.

Q7 What is your current role within higher education?

- ○ Undergraduate Student (1)
- ○ Graduate Student (2)
- ○ Alumni (3)
- ○ Faculty (4)
- ○ Employee/Non-Faculty (5)

Q8 Have you ever experienced any of the following?

	Yes (1)	No (2)
Adverse reproductive health diagnosis or outcome (1)	○	○
Reproductive health diagnosis or outcome that has negatively impacted your educational or professional performance (2)	○	○
Implicit or explicit bias from a medical provider (3)	○	○
Medical provider not familiar with the unique context and/or reproductive health risks of Black women (4)	○	○
Not being able to access quality healthcare or supports (5)	○	○
Having to delay pregnancy because of lack of quality healthcare or supports (6)	○	○
Being unable to delay pregnancy because of lack of quality healthcare or supports (7)	○	○
Challenges promoting the health and safety of your child or dependents (8)	○	○
Chronic or ongoing stress (9)	○	○
Challenges with mental health (including anxiety, depression, etc.) (10)	○	○

Q9 Are there other challenges you've faced with your reproductive health? Please share below.

_____

Q10 How has your racial/ethnic/cultural background positively or negatively impacted your ability to support your reproductive health, if at all?

_____

Q11 How has your educational background positively or negatively impacted your ability to support your reproductive health, if at all?

_____

Q12 Research shows that stress levels have a significant impact on Black reproductive health. How would you rate your typical (Pre COVID-19) stress level?

- ○ Far above average (1)
- ○ Somewhat above average (2)
- ○ Average (3)
- ○ Somewhat below average (4)
- ○ Far below average (5)

Q13 How would you rate your current (during COVID-19) stress level?

- ○ Far above average (1)
- ○ Somewhat above average (2)
- ○ Average (3)
- ○ Somewhat below average (4)
- ○ Far below average (5)

End of Block: Student Experiences with Reproductive Health

Start of Block: Student Reproductive Health Needs

Q15 The following questions help identify the factors most important to supporting the reproductive health of Black women students.

Q16 Based on your experiences and needs, how important or unimportant are the following university policies, practices and supports for your reproductive health?

	Extremely important (1)	Moderately important (2)	Unimportant (3)
Access to abortion and contraceptives (1)	○	○	○
Access to mental health resources (2)	○	○	○
Access to reproductive health services on campus (3)	○	○	○
Access to transparent information about reproductive health care, resources and supports (4)	○	○	○
Child care on campus (5)	○	○	○
Confidentiality and privacy when accessing reproductive care, resources and supports (6)	○	○	○
Diversity, Equity & Inclusion Policies such as Title IX (7)	○	○	○
Health Insurance (8)	○	○	○
Institutional attitude toward reproductive health and parenting (9)	○	○	○
Lactation rooms (10)	○	○	○
Maternity leave (11)	○	○	○
Parent support programs (12)	○	○	○

Peer connections (13)	○	○	○
Reproductive health education and training (14)	○	○	○
Reproductive health education and training specifically about Black/African-American women (15)	○	○	○
Support around safety and sexual assault (16)	○	○	○

Q18 What recommendations do you have for how universities can improve policies, practices and climate to better support your reproductive health?

_____

End of Block: Student Reproductive Health Needs

Start of Block: Resilience

Q19 The following questions explore resilience so we can better understand how Black women students navigate the academic environment and overcome obstacles.

Q20 How would you rate your agreement to the following statements?

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
I am connected to a network of family and/or friends that I can turn to for support (1)	○	○	○	○	○
Even when presented with obstacles, I am able to navigate and access resources at my university (2)	○	○	○	○	○
Even when I have limited resources, I am able to secure the essentials for my education and reproductive health (e.g. tuition, contraception, etc.) (3)	○	○	○	○	○

Q27 What strategies do you use to overcome obstacles to promoting your reproductive health that are presented by the academic/university environment?

_____

End of Block: Resilience

Start of Block: Demographic Data

Q21 This is the last question block, thank you for hanging in there! These last few questions collect demographic data so we can better understand the needs of specific groups.

Q22 What is your age?

- 18-24 (1)
- 25-34 (2)
- 35-44 (3)
- 45-54 (4)
- 54+ (5)

Q23 What is your relationship status?

- Single (1)
- Partnered (unmarried) (2)
- Married (3)

Q24 Are you a parent or responsible for dependents (including caretaking of adults)? Check all that apply.

- [ ] Have children (1)
- [ ] Have other dependents (2)
- [ ] Have no children or dependents (3)

Q25 What is your current employment status?

- ○ Unemployed - Not seeking employment (1)
- ○ Unemployed - Seeking employment (2)
- ○ Employed part-time (3)
- ○ Employed full-time (4)

Q26 What is the highest level of education that you have completed?

- ○ Some college, no degree (1)
- ○ Associates Degree (2)
- ○ Bachelor's Degree (3)
- ○ Master's Degree (4)
- ○ Doctoral Degree (5)

End of Block: Demographic Data

REFERENCES

Allen, A., Wang, Y., Chae, D., Price, M., Powell, W., Steed, T., Black, A., Dhabhar, F., Marquez-Magana, L., & Woods-Giscombe, C. (2019). Racial discrimination, the superwoman schema, and allostatic load: Exploring an integrative stress-coping model among African American women. *Annals of New York Academy of Sciences, 1457*(1), 104-127. DOI: 10.1111/nyas.14188

Almeida, J., Bécares, L., Erbetta, K., Bettegowda, V., and Ahluwalia, I. (2018). Racial/ethnic disparities in low birth weight and preterm birth: The role of multiple forms of stress. *Maternal Child Health Journal, 22*, 1154. https://doi.org/10.1007/s10995-018-2500-7

Anaya, R. (2011). Graduate student mothers of color: The intersectionality between graduate student, motherhood, and women of color in higher education. *Intersections: Women's and Gender Studies in Review Across Disciplines*, (9) 13-31. https://repositories.lib.utexas.edu/bitstream/handle/2152/14230/Intersections_Issue_9.pdf?sequ#page=13

Bartick M, Tomori C. Sudden infant death and social justice: A syndemics approach. Maternal Child Nutrition. 2019; 15:e12652. https://doi.org/10.1111/mcn.12652

Bathgate, K., Colvin, R. L., & Silva, E. (2011). *Striving for student success: A model of shared accountability*. Education Sector.

Bolman, L. G., & Deal, T. E. (2013). *Reframing organizations: Artistry, choice, and leadership* (5th ed.). Jossey-Bass.

Bourdieu, P. (1986). The Forms of Capital. In J. Richardson (Ed.), Handbook of Theory and Research for the Sociology of Education (pp. 241-258). New York: Greenwood.

https://www.marxists.org/reference/subject/philosophy/works/fr/bourdieu-forms-capital.htm

Brennan, J., & Naidoo, R. (2008). Higher education and the achievement (and/or prevention) of equity and social justice. *Higher Education, 56*(3), 287-302. www.jstor.org/stable/40269078

Brown, L., & Watson, P. (2010). Understanding the experiences of female doctoral students. *Journal of Further and Higher Education, 34*(3), 385-404. DOI:10.1080/0309877X.2010.484056

Bryant, A. S., Worjoloh, A., Caughey, A. B., & Washington, A. E. (2010). Racial/ethnic disparities in obstetric outcomes and care: Prevalence and determinants. American Journal of Obstetrics and Gynecology, 202(4), 335–343. https://doi.org/10.1016/j.ajog.2009.10.864

Burchinal, M., McCartney, K., Steinberg, L., Crosnoe, R., Friedman, S. L., McLoyd, V., Pianta, R., & NICHD Early Child Care Research Network (2011). Examining the Black-White achievement gap among low-income children using the NICHD study of early child care and youth development. *Child development*, *82*(5), 1404–1420. https://doi.org/10.1111/j.1467-8624.2011.01620.x

Centers for Disease Control and Prevention (2018). Key 2018 findings. [Index: United States Maternal Mortality Rate]. https://www.cdc.gov/nchs/maternal-mortality/index.htm

Central Intelligence Agency (2020). The World Factbook. [Country Comparisons – Maternal Mortality Ratio. https://www.cia.gov/the-world-factbook/field/maternal-mortality-ratio/country-comparison

Chandra, A., Copen, C., & Stephen, E. (2014). Infertility service use in the United States: Data from the National Survey of Family Growth, 1982–2010. *National Health Statistics Reports*, *73*. National Center for Health Statistics. https://pubmed.ncbi.nlm.nih.gov/24467919/

Chaudry, A., Morrissey, T., Weiland, C. and Yoshikawa, H. (2017). Cradle to kindergarten: A new plan to combat inequality. Russell Sage Foundation.

Childers, T. (2018). *Black motherhood in the academe.* Inside Higher Education https://www.insidehighered.com/advice/2018/01/19/how-race-shapes-narrative-about-motherhood-academe-opinion

Collins, P., H. (2009). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. Routledge.

Commodore, F., Baker, D. J., & Arroyo, A. T. (2018). *Black women college students: A guide to student success in higher education*. Routledge.

Condron, D. J. (2009). Social class, school and non-school environments, and Black/White inequalities in children's learning. *American Sociological Review, 74*(5), 683–708. https://doi.org/10.1177/000312240907400501

Crenshaw, K.,W. (1994). "Mapping the margins: Intersectionality, identity politics, and violence against women of color." In: The Public Nature of Violence. New York: Routledge, p. 93-118.

Creswell, J. (2009). Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. (2014). *Research design: qualitative, quantitative, and mixed methods approaches.* 4th ed. Sage Publications.

Creswell, J., & Creswell, J. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.

Creswell, J., & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, *39*, 124-130. http://dx.doi.org/10.1207/s15430421tip3903_2

Dantley, M. (2005). Moral leadership: Shifting the management paradigm. In F. English (Ed.), *The Sage book of educational leadership* Sage Publications.

DataUSA. (2020). Physician diversity. [Race and ethnicity chart]. Retrieved from https://datausa.io/

Deil-Amen, R. (2014). The "traditional" college student: A smaller and smaller minority and its implications for diversity and access institutions. In M. Stevens & M. Kirst (Eds.), *Remaking college*. Stanford University Press.

DiMaggio, P. J., & Powell, W. W. (2000). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. In A. C. Baum and Frank Dobbin (Ed.), *Economics meets sociology in strategic management* (pp. 143-166). Emerald Group Publishing Limited.

Ellis, E. M. (2001). The impact of race and gender on graduate school socialization, satisfaction with doctoral study, and commitment to degree completion. *Western Journal of Black Studies*, *25*(1), 30.

Fitzgerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: A systemic review. *BMC Medical Ethics*, *18*, 19. DOI: 10.1186/s12910-017-0179-8

Fryer R., Levitt S. (2004). Understanding The Black-White Test Score Gap in the First Two Years of School. The Review of Economics and Statistics.

https://scholar.harvard.edu/fryer/publications/understanding-black-white-test-score-gap-first-two-years-school

Gasman, M., Smith, T., Ye, C., & Nguyen, T. (2017). HBCUs and the production of doctors. *AIMS Public Health Journal*, *4*(6), 579-589. DOI: 10.3934/publichealth.2017.6.579

Geronimus, A. (1992). The weathering hypothesis and the health of African-American women and infants: Evidence and speculations. *Ethnicity & Disease*, *2*, 207–221.

Gordon, S., Elmore-Sanders, P., & Gordon, D. (2017). Everyday practices of social justice: Examples and suggestions for administrators and practitioners in higher education. *Journal of Critical Thought and Praxis*, *6*(1), 68-83. DOI:10.31274/jctp-180810-70

Greenwood, B., Hardeman, R., Huang, L., & Sojourner, A. (2020). Physician-patient racial concordance and disparities in birthing mortality for newborns. *Proceedings of the National Academy of Sciences of the United States of America*., *117*(35), 21194-21200. doi:10.1073/pnas.1913405117

Grimm, M., & Cornish, D. (2018). Infant mortality and racism in the United States. *International Journal of Undergraduate Research and Creative Activities*, *10*(2), 1-7. https://doi.org/10.7710/2168-0620.1097

Giuliani, E., As-Sanie, S., & Marsh, E. (2020). Epidemiology and management of uterine fibroids. *International Journal of Gynecology & Obstetrics, 149*, (1), 3-9. DOI: 10.1002/ijgo.13102

Hansen, M., Levesque, E., Quintero, D. and Valant, J. (2018). Have we made progress on achievement gaps? Looking at evidence from the new NAEP results. Brookings. https://www.brookings.edu/blog/brown-center-chalkboard/2018/04/17/have-we-made-progress-on-achievement-gaps-looking-at-evidence-from-the-new-naep-results/

Harper, S. R., Patton, L. D., & Wooden, O. S. (2009). Access and equity for African American students in higher education: A critical race historical analysis of policy efforts. *The Journal of Higher Education*, *80*(4), 389-414. DOI:10.1353/jhe.0.0052

Harris, A. P. (2012). *Critical race theory*. International Encyclopedia of the Social & Behavioral Sciences. Elsevier.

Hirai, A. H., Kogan, M. D., Kandasamy, V., Reuland, C., & Bethell, C. (2018). Prevalence and variation of developmental screening and surveillance in early childhood. *JAMA Pediatrics. 172*(9), 857–866. doi:10.1001/jamapediatrics.2018.1524

Hoffman, K. M., Trawalter, S., Axt, J. R., & Oliver, M. N. (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proceedings of the National Academy of Sciences of the United States of America*, *113*(16), 4296–4301. https://doi.org/10.1073/pnas.1516047113

Hotchkins, B. (2017). Black women students at predominantly white universities: Narratives of identity politics, well-being and leadership mobility. *NAPSA Journal About Women in Higher Education*, *13*(27), 1-12. https://doi.org/10.1080/19407882.2017.1326943

In Our Own Voice: National Black Women's Reproductive Justice Policy Agenda. (2021). Black Reproductive Policy Agenda. https://blackrj.org/blackrjpolicy/

Institute for Women's Policy Research (2020). Improving success in higher education through increased access to reproductive health services. https://iwpr.org/wp-content/uploads/2020/07/CERH-Higher-Ed-brief.pdf

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, *33*(7), 14–26. https://doi.org/10.3102/0013189X033007014

Kezar, A. J., & Holcombe, E. M. (2017). *Shared leadership in higher education: Important lessons from research and practice.* American Council on Education.

Khalifa, M. A., Gooden, M. A., & Davis, J. E. (2016). Culturally responsive school leadership: A synthesis of the literature. *Review of Educational Research*, *86*(4), 1272-1311. https://doi.org/10.3102/0034654316630383

Legewie, J. (2019). Police violence and the health of black infants. *Science Advances, 5*, 12. DOI: 10.1126/sciadv.aax7894

Lester, J., & Kezar, A. J. (2012). Understanding the formation, functions, and challenges of grassroots leadership teams. *Innovative Higher Education, 37*(2), 105-124. DOI:10.1007/s10755-011-9191-y

Lewis, N. (2020). *Why Black students are at the epicenter of the student debt crisis – and what we can do about it.* The Hechinger Report. https://hechingerreport.org/opinion-why-black-student-parents-are-at-the-epicenter-of-the-student-debt-crisis-and-what-we-can-do-about-it/

Lopez, G. R. (2003). The (radically neutral) politics of education: A critical race theory perspective. *Education Administration Quarterly*, *39*(1), 68-94. https://doi.org/10.1177/0013161X02239761

Los Angeles County Department of Public Health. (2020). Birth Disparities Data. Unpublished.

Los Angeles County Health Agency. (2019). A call to action: Supporting a movement for fair and just outcomes. Center for Health Equity Action Plan 2018-2023. http://publichealth.lacounty.gov/CenterForHealthEquity/PDF/CHEActionPlanFinalDraft_2.15.2019.pdf

Love, C., David, R., Rankin, K., Collins, J. (2010). Exploring weathering: Effects of lifelong economic environment and maternal age on low birth weight, small for gestational age, and preterm birth in African-American and White women, *American Journal of Epidemiology*, Volume 172, Issue 2, 15 July, Pages 127 134, https://doi.org/10.1093/aje/kwq109

Mason, M.A., Wolfinger, N.H., & Goulden, M. (2013). Do babies matter?: Gender and family in the ivory tower. Rutgers University Press.

Mays, V. M., Cochran, S. D., & Barnes, N. W. (2007). Race, race-based discrimination, and health outcomes among African Americans. *Annual review of psychology*, *58*, 201–225. https://doi.org/10.1146/annurev.psych.57.102904.190212

McEwen, C., & McEwen, B. (2017). Social structure, adversity, toxic stress and intergenerational poverty: An early childhood model. *Annual Review of Sociology*, *43*(1), 445-472. DOI:10.1146/annurev-soc-060116-053252

Merriam, S. B. (2009). Qualitative research: A guide to design and implementation. San Francisco, CA: Jossey-Bass.

Mitchell, C., (2018). The effects of type of institution (HBCU vs. PWI) and acculturation level on minority status stress, perceived faculty support, persistent attitudes, and perception of the university environment. (Publication No. 10746486) [Doctoral dissertation, University of La Verne]. ProQuest Dissertations and Theses Global.

Neal-Barnett, A. M., Stadulis, R., Payne, M. R., Crosby, L., Mitchell, M., Williams, L., & Williams-Costa, C. (2011). In the company of my sisters: Sister circles as an anxiety intervention for professional African American women. *Journal of Affective Disorders*, *129*(1-3), 213–218. https://doi.org/10.1016/j.jad.2010.08.024

Northouse, P. G. (2013). *Leadership: Theory and practice* (6th ed.). SAGE.

O'Mara-Eves, A., Brunton, G., Oliver, S., Kavanagh, J., Jamal, F., & Thomas, J. (2015). The effectiveness of community engagement in public health interventions for disadvantaged groups: A meta-analysis. *BMC Public Health*, *15*, 129. https://doi.org/10.1186/s12889-015-1352-y

Olumhense, E. (2020). *A pregnant woman tweeted concerns about a Bronx hospital. She dies days later.* The City. https://www.thecity.nyc/health/2020/4/27/21247056/a-pregnant-woman-tweeted-concerns-about-a-bronx-hospital-she-died-days-later

Onwuegbuzie, A. J., & Leech, N. L. (2004). Enhancing the interpretation of significant findings: The role of mixed methods research. *The Qualitative Report*, *9*(4), 770-792. https://doi.org/10.46743/2160-3715/2004.1913

Patcher, L., & Coll, C. (2009). Racism and child health: A review of the literature and future directions. *Journal of Development, Behavior and Pediatrics*, *30*(3), 255–263. doi:10.1097/DBP.0b013e3181a7ed5a

Patterson-Stephens, S. ,M.; Lane, T., B.; and Vital, L.,M. (2017) "Black Doctoral Women: Exploring Barriers and Facilitators of Success in Graduate Education," *Higher Education Politics & Economics*: 3(1) DOI: https://doi.org/10.32674/hepe.v3i1.15

Pearson Education and North Carolina Concept-Based Learning Editorial Board. (2014). *Nursing: A concept-based approach to learning*. Pearson Education.

Perlow, O. (2013). Parenting within the nexus of race, class, and gender oppression in graduate school at a historically black college/university. In M. Castaneda & K. Isgro (Eds.), *Mothers in academia* (pp. 111-122). Columbia University Press.

Prather, C., Fuller, T., Jeffries IV, W., Marshall, K., Howell, A., Belyue-Umole, A., & King, W. (2018). Racism, African American women, and their sexual and reproductive health: A review of historical and contemporary evidence and implications for health equity. *Health Equity, 2*(1), 249–259. DOI: 10.1089/heq.2017.0045.

Prikhodko, A. and Haynes, C. (2018). Balancing Graduate School and Mothering: Is there a choice? International Journal of Doctoral Studies. 13, 313-326. https://doi.org/10.28945/4109

Rahman, K., (2021). Roe v. Wade being overturned will harm black women the most. Newsweek. https://www.newsweek.com/overturning-roe-harm-black-women-most-1653082

Renée, M., Welner, K., & Oakes, J. (2010). Social movement organizing and equity-focused educational change: Shifting the zone of mediation. In A. Hargreaves, A. Lieberman, M. Fullan, & D. Hopkins (Eds.), *Second international handbook of educational change* (pp. 153–168). Dordrecht: Springer Netherlands.

Roberts, D. (2014). *Killing the black body: Race, reproduction, and the meaning of liberty*. Vintage.

Rodriguez, J., Lopez, I., Campbell, K., & Dutton, M. (2017). The role of historically black college and university medical schools in academic medicine. *Journal of Health Care Poor and Underserved*, 28, 266-278. DOI: 10.1353/hpu.2017.0022

Rogers, J., McLean, A., & Mentor, M. (2019). A seat at the table: Womanist narratives of black mothers in doctoral programs. *Taboo: The Journal of Culture and Education*, *18*(1), 87-108. DOI:10.31390/TABOO.18.1.07

Rushovich, T., Boulicault, M., Chen, J.T., Danielsen, A., Tarrant, A., Richardson, S., & Shattuck-Heidorn, H. (2021). Sex disparities in COVID-19 mortality vary across US racial groups. *J GEN INTERN MED* **36,** 1696–1701 (2021). https://doi.org/10.1007/s11606-021-06699-4

Sablan, J. (2018). Can you really measure that? Combining critical race theory and quantitative methods. *American Educational Research Journal*, *56*(1), 178-203. https://doi.org/10.3102/0002831218798325

Sacks, T. (2017). Performing Black womanhood: A qualitative study of stereotypes and the healthcare encounter. *Critical Public Health*, *28*(1), 59-69. https://doi.org/10.1080/09581596.2017.1307323

Saldana, J. M. (2015). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications.

Schmeer, K., & Tarrence, J. (2018). Racial/ethnic disparities in inflammation: Evidence of weathering in childhood? *Health and Social Behavior*, *59*(3), 411-428. DOI: 10.1177/0022146518784592

Sergiovanni, T. (1997). Leadership as stewardship. In M. Fullan (Ed.), *Educational leadership reader* (pp.269-286). Jossey Bass.

Shoho, A. R., Merchant, B. M., & Lugg, C. A. (2005). Social justice: Seeking a common language. In Fenwick W. English. Ed, *The SAGE Handbook of Educational Leadership: Advances in Theory, Research, and Practice* (pp. 47–67). SAGE Publications.

Shonkoff, J. P., Garner, A. S., Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics (2012). The lifelong effects of early childhood

adversity and toxic stress. *Pediatrics*, *129*(1), e232–e246. https://doi.org/10.1542/peds.2011-2663

Smart, T. (2021). Covid-19 job market wreaks havoc on black women. U.S. News. https://www.usnews.com/news/economy/articles/2021-04-15/black-women-suffering-the-most-from-covid-19-job-market-disruption

Smedley, B. D., Stith, A. Y., Colburn, L., & Evans, C. (2001). The right thing to do, the smart thing to do: Enhancing diversity in the health professions: Summary of the Symposium on Diversity in Health Professions in Honor of Herbert W. Nickens, M.D.. Washington (DC). https://www.ncbi.nlm.nih.gov/books/NBK223632/

Smith, I., Bentley-Edwards, K., El-Amin, S., and Darity, W. (2018). Fighting the gap: Eradicating the Black-White infant mortality gap. Duke University Samuel DuBois Cook Center on Social Equity.

Solórzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, *69*(1/2), 60-73. https://www.jstor.org/stable/2696265

Span, C. M. (2015). Post-Slavery? Post-Segregation? Post-Racial? A History of the Impact of Slavery, Segregation, and Racism on the Education of African Americans. *Teachers College Record*, *117*(14), 53-74. DOI:10.1177/016146811511701404

Stewart, A., & Graham, E. (2010). Preterm birth: An overview of risk factors and obstetrical management. *Developmental disabilities research reviews*, *16*(4), 285–288. https://doi.org/10.1002/ddrr.124

Venezia, A., & Kirst, M. W. (2005). Inequitable opportunities: How current education systems and policies undermine the chances for student persistence and success in college. *Educational Policy, 19(*2), 283-307.

Woods, R. L. (2001). Invisible women: The experiences of Black female doctoral students at the University of Michigan. In R. O. Mabokela & A. L. Green (Eds.), *Sisters of the academy: Emergent black women scholars in higher education* Stylus.

World Health Organization. (2019). Maternal Mortality Fact Sheet. https://www.who.int/news-room/fact-sheets/detail/maternal-mortality

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race, Ethnicity and Education*, *8*(1), 69-91. https://doi.org/10.1080/1361332052000341006

Young, S. (2020). *Confronting racial bias in maternal deaths.* WebMD. https://www.webmd.com/baby/news/20200117/confronting-racial-bias-in-maternal-deaths