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THE ROLE OF PEER MENTORING FOR BLACK AND LATINX

DOCTORAL STUDENTS' SUCCESS

Dissertation

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The Role of Peer Mentoring for Black and Latinx

Doctoral Students' Success

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ABSTRACT

Students in doctoral education view mentoring as the most important aspect of their educational experience (Golde et al., 2005). Mentoring can affect student retention and dissertation completion (Cronan-Hilllix et al., 1986) and is typically received from the student's advisor. However, many Black and Latinx doctoral students do not receive the critical feedback they need from faculty to develop their academic skills (Williams, 2018). Given reported problematic faculty interactions within the traditional mentoring model (Johnson-Bailey et al., 2008), peers offer an alternative source of support. Few empirical studies examine the effects of peer mentoring for doctoral students of color.

This qualitative study examines how six Latinx and Black doctoral students engage in peer mentoring and how they perceive its effects on their doctoral experience. The maximum variation sample includes students in five disciplines who were enrolled in one of three research universities in the Northeast. Critical race theory (Bell, 1992; Crenshaw et al., 1995) was employed to frame institutions of higher education as sites of deeply ingrained racism that inform how Black and Latinx doctoral students receive support from formal institutional sources (e.g., faculty, institutional offices). During semi-structured interviews, students discussed how they drew on their own community cultural wealth (Yosso, 2005) to create networks of support with peers, and the ways that peers provided them with much-needed guidance.

Findings reveal how peers played a profoundly important role in helping students overcome significant challenges in their program while providing key information. Students often received multiple, simultaneous forms of support from a single peer, including social/emotional, academic, and financial-related. Peers provided different forms of navigational capital (Yosso, 2005) to students, pairing them with tools and resources needed to maneuver through complex systems that were not designed for their success. Data also illuminated how students received resistant capital (Yosso, 2005) in order to manage numerous challenges.

Findings point to the benefits of facilitating peer mentoring for Latinx and Black doctoral students, along with significant improvements in institutional support services and advising structures.

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Dedicated to Mrs. Yashoda Devi Ji. I was never able to meet you but you have given me the most precious gift.

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CHAPTER ONE: Overview of the Study

Introduction

Latinx and Black students experience severe inequities in doctoral education, often struggling to complete their respective degree programs (Sowell & Okahana, 2015). Among students in science, technology, engineering, and mathematics (STEM) who began their doctoral programs prior to April 2005, the seven-year attrition rate was 35% for Latinx doctoral students and 38% for Black doctoral students (Sowell & Okahana, 2015). Although Latinx and Black U.S residents comprise 18.3% and 13.4% of the U.S. population respectively, they held only 6.3% and 7.4% of the share of earned doctorates in 2014-15 ("QuickFacts United States", n.d.; U.S. Department of Education, n.d.). Further, doctoral student attrition has reached highly concerning proportions, with reported rates consistently being estimated to be at 40-50% (Golde, 2005). More specifically, doctoral student attrition for students from underrepresented backgrounds has been reported at higher rates than other student demographics across all disciplines, which indicates a disparate experience for them (Gardner, 2007). These statistics point to a gap in persistence and degree attainment at the doctoral level by racial/ethnic status. In addition to facing gaps in degree attainment, Latinx and Black doctoral students endure myriad and complex challenges within predominantly-white institutions related to the overall campus climate which may help explain these harsh statistics (Espino, 2014; Pifer & Baker, 2014; Williams, 2002).

Black and Latinx doctoral students report an absence of faculty support as well as problematic experiences with peers and faculty alike. Within predominantly-white institutions, Black and Latinx students regularly face systemic challenges within the departmental and institutional settings, across a number of contexts. Numerous studies highlight how these

students regularly have their academic abilities questioned by members of the faculty (Espino, 2014; Truong et al., 2016; Williams et al., 2018), experience racism from faculty and peers (Gildersleeve et al., 2011; Truong et al., 2016), are tokenized in class by their professors (Moyer, et al., 1999; Pifer & Baker, 2014), and feel isolated or detached from their academic community (Lewis et al., 2003; Williams, 2002). These challenges can negatively affect students' overall experience in their doctoral program and presumably play a role in whether or not they persist in their program. Following this, a root cause of students' lack of persistence in doctoral education is an absence of effective faculty mentoring (The 7th International Conference, 2012). Importantly, faculty-student mentoring at the doctoral level is central for both student satisfaction and success in their programs, and is especially important for Latinx and Black students given the numerous documented challenges they face.

Importance of Faculty-Student Mentoring in Doctoral Education

The most crucial relationship for a doctoral student is with their advisor, dissertation chair, or other faculty member (Barnes & Austin, 2009; Holley & Caldwell, 2012; Ku et al., 2008) given the high level of guidance and support that students receive from members of the faculty. Unsurprisingly then, students in doctoral education specifically view mentoring as the single most important aspect of a high-quality educational experience (Golde et al., 2000; Luna & Cullen, 1998). Mentoring is central to doctoral student academic and social integration into their respective disciplines and also influences doctoral student satisfaction (Ellis, 2001; Nerad & Miller, 1996; Nettles, 1990). Mentoring activities include helping students cultivate critical thinking skills (Webb et al., 2009), assisting with making important personal and academic decisions (Webb et al., 2009), developing students' self-esteem and competence (Day & Allen, 2004), guiding students through the practice and purpose of research (Lovitts, 2002; Sands et al.,

1991), and providing crucial insights into navigating the doctoral process as well as departmental politics (Ross-Sheriff, 2017). Lewinski et al. (2017) note that a doctoral program environment that encourages personal and professional growth is created through positive interactions with peers and faculty. Such interactions include checking-in, providing advice, and addressing the dynamic nature of students' challenges and successes that take place throughout the course of the program (Cohen, 2011; Fang et al., 2016). Doctoral students feel both supported and socialized into the larger academic community when their faculty members model teaching, scholarship, and service to the profession (Armstrong et al., 2017; Fang et al., 2016).

Numerous scholars have documented benefits of faculty mentoring at the doctoral level. For example, research highlights the value of such relationships in the developmental process of the doctoral student **(**Paglis et al., 2006; Wrench & Punyanunt, 2004). Importantly, the mentoring that doctoral students receive can affect student retention, dissertation completion, loneliness, and career advancement (Cronan-Hilllix et al., 1986; Gardner & Barnes, 2007). Davidson and Foster-Johnson (2001) argue that cultivating developmental or mentoring relationships between graduate students and their professors is a crucial factor in determining the successful completion of graduate programs. Effective mentoring involves not only the transfer of academic-related skills, attitudes, and behaviors, but also includes a level of interaction, trust, and communication, which results in a psychological comfort that empowers students with the confidence and knowledge to grow both academically and socially, regardless of the institutional environment (Redmond, 1990).

Mentoring is also crucial to facilitating successful experiences for doctoral students that can help them prepare for a career in academia (Grant-Vallone & Ensher, 2000; Thien & Beach, 2010). As noted above, guidance and support from faculty provides significant socialization into

the norms, expectations, and challenges of the academy; this is especially critical for underrepresented student populations (Austin & McDaniels, 2006; Gardner, 2008; Taylor & Antony, 2000). Faculty mentors help students develop professional skills related to research, writing, and publishing that are important for preparing students to enter into the academic profession as faculty members (Thien & Beach, 2010). Paglis et al. (2006) found that mentoring was also a strong indicator of students' self-efficacy and research productivity. In fact, so critical is the faculty mentor to a doctoral student's career that the mentoring they provide is predictive of doctoral students successfully attaining faculty jobs (Rybarczyk et al. 2011). Thus, ensuring that Black and Latinx students receive adequate mentoring is one important way to address the underrepresentation of faculty of color within the professoriate. Therefore, we must look closely at how faculty mentoring takes place in doctoral programs in order to assess the extent to which it is serving these student populations.

Definitions and Functions of Mentoring

There are several definitions of mentoring and what it comprises (Crisp & Cruz, 2009). Mentoring consists of faculty members assisting students in their research and writing, developing professional skills, and networking in their field (Waldeck et al., 1997). Literature also highlights the differences between formal and informal mentoring relationships, with the former type more likely to be assigned by the organization and to be of shorter duration (Ragins et al., 2000). Formal mentoring relationships are also focused on defined goals and outcomes (Ragins et al., 2000). Mentoring relationships can provide psychosocial and career support (Kram & Isabella, 1985). Psychosocial support includes acceptance, role-modeling, friendship, and counseling (Kram & Isabella, 1985), while career support includes helping mentees network

with other individuals, advocating on the mentee's behalf, coaching, and providing feedback (Kram & Isabella, 1985).

Jacobi's (1991) review highlights three ways in which researchers find consensus on the term "mentoring," which will inform the definition I will use in this study: 1) it emphasizes the individual's growth and accomplishment and includes various forms of assistance (Chao et al., 1992; Cullen & Luna, 1993); 2) it may include wide-ranging forms of support that include help with professional and career development (Brown II et al., 1999; Campbell & Campbell, 1997) and psychological support (Chao et al., 1992; Davidson & Foster-Johnson, 2001); and, 3) it refers to relationships that are personal (Davidson & Foster-Johnson, 2001; Green & Bauer, 1995). These critical supports tend to come, in doctoral education, from a single source: the student's advisor. This is in contrast with undergraduate advisors, who are responsible primarily for course selection, registration, and other tasks that are much less focused on mentoring, as defined in the literature. In addition to guiding students in their program of study and supervising their progress towards degree completion, graduate advisors help students navigate the department and institution, serve as a reliable source of information, and advocate on behalf of their advisees (Ferreira, 2006; Jones et al., 2013). Thus, advisors are central to the success of Black and Latinx doctoral students: they help students develop as researchers, provide assistance with professional development, assess students' needs, help students cope with failure, and serve as role models (Barnes & Austin, 2009; Jones et al., 2013).

Notably, the traditional model of the faculty-doctoral student relationship adheres to the dyadic and hierarchical model of mentoring. This definition stresses "a deliberate pairing of a more skilled or experienced person with a lesser experienced one, with the agreed-upon goal of having the lesser-skilled person grow and develop specific competencies" (Murray, 1991, p. 14).

This kind of traditional one-on-one relationship between the student and their faculty member is not inevitable. Other arrangements are possible, in which mentoring is more reciprocal and both parties are equally experienced and hold similar credentials.

Problems with Traditional Mentoring for Black and Latinx Doctoral Students

Black and Latinx doctoral students report an absence of support from their faculty within this traditional model of mentoring in predominantly-white institutions. Despite the critical role of faculty mentoring for student success in doctoral education (Baird, 1995; Gildersleeve et al., 2011; Tierney & Bensimon, 1996), these students generally do not receive the kind of critical and constructive feedback that they need from faculty in order to develop their intellectual, research, writing, and teaching skills (Williams, 2018). For example, many Latinx and Black doctoral students perceive that their white peers get opportunities that they do not in the areas of writing, presenting, coauthoring manuscripts, and receiving research advice (Patterson-Stewart et al., 1997; Pifer & Baker, 2014). Turner and Thompson (1993) found that a lesser number of Black and Latinx doctoral women had mentoring and apprenticeship opportunities such as holding research/teaching assistantships, being introduced by faculty to influential academic networks, coauthoring papers with a faculty member, and presenting in conferences, than did their white women counterparts.

Studies also show that Black and Latinx doctoral students often report negative experiences with faculty. For example, these students report being excluded from after-class discussions and out-of-class socializing opportunities with faculty that they believe often lead to research opportunities with professors (Johnson-Bailey et al., 2018). Studies also reveal that faculty often do not support students' research interests that involve examining marginalized communities (Gildersleeve et al., 2011; Gonzalez et al., 2006). Finally, faculty members from

majority backgrounds may not understand the experiences of marginalized graduate students or may lack experience working with these populations, which can negatively affect interactions with their doctoral students (Barker, 2011; Thomas et al., 2007).

The absence of faculty support and problematic faculty-student relationships are associated with negative outcomes for students. Students who suffer from inadequate or negative faculty relationships can experience low self-esteem (Gasman et al., 2008), consider dropping out of their programs (Gasman et al., 2008), or actually leave their programs before earning their degree (Freeman, 2016; Golde, 2000). Without a formal support system or a positive relationship with a faculty member during their doctoral tenure, students often take more time to complete their degrees and suffer psychosocial consequences such as anxiety, depression, and stress (Cohen, 2011; Pancheri et al., 2013). These severe problems occur when the traditional dyadic model of faculty-student mentoring is lacking or problematic.

However, there is a new approach to mentoring that might begin to address the gaps in overall support that Black and Latinx doctoral students experience. There has been a shift in the literature away from the traditional hierarchical mentoring structure between faculty and student to a peer mentoring model. Peer mentoring could be a viable alternative to the hierarchical faculty-student model of doctoral student support. Decades ago Kram (1988) proposed that individuals rely on a "constellation" of numerous persons for developmental support in their careers as opposed to just one primary individual or mentor. Recently this idea has come back into currency within the higher education context: for example, Jackson and Price (2019) note that multi-mentor networks may be an answer to the "increasingly complex academic environment where a hierarchical mentoring relationship is no longer realistic, nor desired" (p. 102).

Need for the Study

Although Latinx and Black doctoral students as a group appear to lack the support they require from faculty and report problematic faculty interactions, they still require mentoring even if faculty cannot provide it. This is especially important given how important mentoring is for doctoral students' success. As mentioned earlier, one of the root causes of student attrition among doctoral students is an absence of effective mentoring from faculty (The 7th International Conference, 2012). Thus, research on alternative mentoring structures and models is greatly needed. Students in doctoral education can obtain the mentoring they require from individuals other than their advisor. Fellow students might be one source of potential mentors, although little research explores this potential form of mentoring for doctoral students of color specifically.

Important benefits of peer mentoring for students (of color) have been found at the undergraduate level; however, a gap exists within doctoral education. Peer support has been shown to influence student retention, learning, and social and emotional development for undergraduates (Flores-Scott & Nerad, 2012). Fewer empirical studies on the effects of peer mentoring for doctoral students exist but the available evidence can help shed light on how these students might benefit from support and guidance from fellow students. The majority of studies that do exist at the doctoral level do not explicitly focus on students of color (e.g., Grant-Vallone & Ensher, 2000; Mullen & Tuten, 2010), presenting a significant gap in the literature.

Further, the findings of this study can generate additional scholarship on what mentoring models best support students of color. The literature at the doctoral level that examines the role of mentoring focuses largely on the relationship between students and faculty due to the centrality of the advisor, dissertation chair, or other key faculty members in the success of these students. This study can help generate different research done at the doctoral level by introducing

alternative mentoring models and structures to explore and test. The role of peer mentoring at the doctoral level can potentially serve as a strong multi-person, non-hierarchical, reciprocal model of mentoring: this model can be leveraged as a central part of students' larger mentoring networks or constellations to help fill the void in overall faculty support for Latinx and Black students.

This qualitative, interview-based study will examine how Latinx and Black doctoral students across three institutions in the Northeast engage in peer mentoring and how participants perceive its effects on their doctoral experience. Drawing on Critical race theory (Bell, 1992; Crenshaw et al., 1995; Delgado & Stefancic, 2000), this study will situate Latinx and Black doctoral students' experiences with peer mentoring within the context of the raced departmental and institutional environment within which they operate. In connection with the theme of centering the experiential knowledge of communities of color (Solórzano & Yosso, 2001), the interviews will draw upon the counter-story framework to center the voices of those located at the margins of higher education and to provide a space for students to name their own realities (Ladson-Billings, 2010). Finally, this study will focus on the ways that students provide one another with various forms of capital found within their respective racial communities, as conceptualized by the community cultural wealth model (Yosso, 2005).

Research Questions

This study will focus on how Black and Latinx doctoral students find support from fellow doctoral student peers within their department or institution and the specific ways that they receive support. This study will also investigate how students perceive the impact of peer mentoring on their overall doctoral experience. Finally, this study will investigate how students see peer mentoring fitting into the broader landscape of the institutional supports that are

available (e.g., faculty, institutional employees, student organizations, institutional offices).

Students will be asked to reflect on whether they feel that the mentoring they receive from peers

fills in any perceived gaps in institutional support, or if one form of support complements the

other.

This study will focus on three main research questions:

1. How do Latinx and Black doctoral students seek and receive support from peers within
their doctoral institution?

2. How do students perceive the function and impact of peer mentoring in their doctoral
experience?

3. How do doctoral students perceive the relationship between peer mentoring and other
forms of institutional support?

Theoretical Framework

This study is situated within Critical race theory (CRT) theoretically in two key ways.

CRT (Bell, 1992; Crenshaw et al., 1995; Delgado & Stefancic, 2000; Freeman, 1977) rests on the

underlying idea that racism is normalized in American society (Delgado & Stefancic, 2000):

"because (racism) is so enmeshed in the fabric of our social order, it appears both normal and

natural to people in this culture" (Ladson-Billings, 1998, pp. 212-213). Students in higher

education operate within predominantly-white institutions built for and by white heterosexual

men of privilege (Patel, 2015). This foundational aspect of American higher education

institutions, and doctoral education more specifically, impacts the ways that Black and Latinx

students experience their programs, and further, informs whether or not they receive adequate

support from faculty. Importantly, this foundation also informs whether or not certain students

have access to various resources and support that are important for their academic success. The interview protocol will incorporate as a philosophical assumption this CRT tenet that underscores racism as both endemic and deeply ingrained in American life (Ladson-Billings & Tate, 2006). Grand tour questions and probes will allow for students to reflect on the larger departmental/institutional climate within which they operate. Students will then be asked to consider how their peers provide them with the tools and resources to navigate different aspects of the climate that may be challenging for them.

Another major theme of CRT in education is the recognition that "the experiential knowledge of students of color is legitimate, appropriate, and critical to understanding, analyzing, and teaching about racial subordination in the field of education" (Solórzano & Yosso, 2001, p. 473). An approach that critical race theorists draw upon to recognize the experiential knowledge of communities of color is through the use of counternarratives or stories that seek out the voices from those who can speak firsthand about the ways that they have been oppressed (Delgado & Stefancic, 2001; Harper et al., 2011). In this vein, CRT has also informed my methodological approach with the inclusion of counter-storytelling, which I will use to elicit how students draw on their cultural strengths and resources to support one another through doctoral education. Each student's interview will operate as a counter-story, where Latinx and Black students will be asked to tell their own stories about the ways in which their peers provide them with different types of support within inherently racist academic environments.

Connecting to CRT's rejection of deficit-informed research and practice, the way I design the interview questions will be informed by Yosso's community cultural wealth framework (2005), which outlines the assets that communities of color possess. The different types of capital within the community cultural framework include: aspirational, linguistic, navigational, social,

familial, and resistant capital. This framework is a key part of this study as it positions students of color as holders of broad and deep knowledge, resources, and assets that are found within their respective racial/ethnic communities. The forms of capital outlined by Yosso will inform how I frame the interview questions. For example, I will ask participants to reflect on the ways that they draw on their own cultural capital to create networks of support with peers, the ways that peers provide them with key resources to navigate the doctoral process, and how peers may help them navigate departmental practices that do not serve them. Finally, the community cultural wealth framework will be used during the analysis phase to code the data through a deductive process whereby the codes and themes that emerge are informed by the community cultural wealth framework.

Significance of the Study

This study is important for the field of higher education in key ways. Examining the role of peer mentoring may allow us to discover ways to provide students with additional and/or more effective avenues for support (outside of the traditional faculty-student relationship) by way of their peers. Additionally, investigating how Latinx and Black doctoral students engage with peer mentoring can help inform how doctoral programs are structured and how best to support students of color.

Additional Avenues of Support for Black and Latinx Doctoral Students

Students at the doctoral level often require mentoring on a multitude of focus areas, such as navigating their future career path, preparing for doctoral examinations, learning how to write grants, or navigating the racial climate, to name just a few. As discussed, doctoral students typically rely heavily on support from one primary faculty member in ways that might not facilitate growth and development in all of these crucial areas. Even interpersonally warm and

effective faculty mentoring might be difficult to deliver by one person, as faculty members have many claims on their time, specialize in different skills, and have specific areas of expertise. Examining peer mentoring models that prove to be effective can help remove this sole reliance on one faculty member and create a broader network of support for students. This may allow us to discover ways to provide students with additional and/or more effective avenues for support by way of their peers. Strong peer mentoring models would allow for the "constellation" (Kram, 1988) of support that individuals rely on. Peer support and interaction may also offer advantages that faculty cannot provide due to the inherent power differentials in faculty-student relationships. For example, those peers who entered an academic program with other students might provide different types of information such as knowledge and skills they acquired from coursework, their associations with faculty, and their respective memberships in campus and professional organizations (Freeman, 2016). They may also operate as both sounding boards and cheerleaders, encouraging one another's success (Lowery & McConnell, 2019).

Informing Practice

Investigating how Latinx and Black doctoral students engage with peer mentoring can help inform how doctoral programs are structured and how best to support students of color. Results from this study can shed light on how departmental administrators and faculty can best facilitate positive peer interactions within doctoral programs as well as which models might yield optimal results for student well-being and achievement. It can also help faculty and administrators to re-assess how current programs, offices, and support mechanisms can better reach and serve students of color and other marginalized groups. The results of this study can inform how mentoring programs are created and inform important factors such as: frequency of

meeting, cross-disciplinary relationships, and format consideration to inform administrators on building effective support programs.

Research Design

It is important to first provide an overview of the different types of support that I anticipate students in this study will discuss. Students might receive help with technical skills such as learning a new qualitative software, writing support, practical help, or learning skills in a specific area. Financial-related support may include finding/applying for scholarships, travel, or conference funding, or help with applying for grants. Academic support includes instances where students receive writing support, comments and suggestions on drafts, feedback on papers and publications, sharing expertise within a specific content area, support with teaching and content, and critical thinking. Students may also receive guidance related to different aspects of being a doctoral student, for example, managing multiple projects, balancing different parts of life, and learning how to advocate for themselves.

Social/emotional support may include confirming students' intelligence, enhancing their sense of competence/confidence, exploring personal and professional concerns, acting as a reliable friend, and providing students with friendship, collegiality, and/or socializing. This may also include instances of simply being there for the student (e.g., providing a listening ear or crying/laughing together), providing encouragement or inspiration, believing in the student's abilities, counseling on personal/professional work issues, and acting as a role model. Navigating the environment/climate may include support related to operating within a department that is structured in a way that works against the student as well as figuring out how to address challenges students may face (e.g., feelings of isolation, racism, lack of support from faculty). Another form of support may entail being introduced or connected with other individuals who

are helpful to the student. Finally, career support encompasses receiving guidance related to applying for jobs, postdoctoral opportunities, and career-related networking.

In this qualitative study I interviewed six Latinx and Black doctoral students across three institutions in the Northeast that represented a number of contrasting institutional contexts for doctoral study. Individual semi-structured interviews that were one-hour long took place virtually via Zoom. I utilized a purposive criterion sampling strategy (Patton, 2002) with participant criteria that included students who 1) self-identified as Black and/or Latinx; 2) were currently enrolled in a research-oriented terminal degree leading to the dissertation; 3) had completed at least one semester in their doctoral program, and, 4) had received at least one type of support from at least one peer within their department or institution.

In addition to varying the institution context, I drew on maximum variation sampling to include a variety of disciplines represented in the study in order to examine the nuances of peer mentoring relationships that may be informed by the norms and values of students' respective disciplines.

Limitations

Black and Latinx students are underrepresented in doctoral education which severely reduces, if not excludes, the possibility of drawing upon a random sampling technique. Institutional enrollment data of these student populations by discipline was either not collected or was unavailable, making it impossible to characterize the overall representation of students of color at a particular institution. For these reasons, I utilized snowball sampling to locate participants and had a small sample of six participants across the three institutions. As in any qualitative sample, I will not be able to generalize the results of this study to all Black and Latinx doctoral students who experience peer mentoring. Although the sample size was small, I worked

to identify participants who had received peer mentoring through different structures so as to not focus only on ideal mentoring models. I also varied the institutional context and avoided choosing "excellent" sites for receiving peer support.

My identity as a person of color as well as my work in the field centering on diversity and inclusion efforts has undoubtedly had an impact on the way I look at the issue of the doctoral experience and mentoring, especially in areas relating to marginalized groups. I care very deeply about shedding light on inequities that many different groups of people in society grapple with on a daily basis and this most certainly shows up in the work that I take on in my doctoral studies. This work has been the primary reason for my strong interest in investigating Black and Latinx students' experiences with peer mentoring. Although I will be "looking" for certain insights for students, I will make a concerted effort to separate my views, expectations, and biases on certain topics with the research that I'm conducting. However as a person of color who has gone through life as a student and having worked with Latinx and Black students at the doctoral level in different institutional climates, my collective experience will serve as an asset to get to the heart of what I am investigating.

Overview of the Study

This dissertation will comprise five chapters. I have provided background on the problem as well as the significance in this chapter. In Chapter two, I will present a review of the literature related to mentoring more broadly as well as peer mentoring at the doctoral level. I describe the overall design of the study, including selection of methods in chapter three. Chapter four will delineate my findings based on the data collected. Finally, in chapter five, I discuss my findings and their relevance to the fields of mentoring, doctoral education, and institutional practice as related to supporting Black, Latinx, and other student of color populations. The ways in which

the major themes align with the literature at the doctoral level will also be explored. I will then

discuss how the findings map onto Yosso's (2005) community cultural wealth framework.

Following this, I will provide recommendations related to the larger field of higher education.

CHAPTER TWO: Review of Related Literature

In this chapter I will expand on the scholarship cited in chapter one that is most relevant to the challenges that Latinx and Black students face in doctoral education. Because mentorship is an important mechanism in the doctoral student experience, I will also provide an expanded overview of mentoring to show how key studies have shaped how we currently conceptualize mentoring in higher education. Importantly, scholars have also established that mentoring can function informally or formally. As noted in the previous chapter, although mentoring from faculty in particular has been shown to be critical to the success of doctoral students, Black and Latinx students report an absence of faculty mentoring as well as problematic experiences with faculty. In this chapter, I will provide more in-depth information (e.g., type of study, sample size, methodology) on select studies from chapter one. Same-race faculty mentoring has been identified as important for students of color but is a challenge due to the small numbers of faculty of color represented within higher education.

Following this, I will explore the role of peer mentoring as a way to help fill this void in faculty support for Latinx and Black doctoral students. First, I will outline important definitions related to peer mentoring and will shed light on how such programs can support students in unique ways that the traditional model of faculty-student mentoring cannot. Research has shown that peer mentoring has been especially helpful for students at the undergraduate level (including Latinx and Black populations); in this chapter I will briefly discuss the effects of peer mentoring for Black and Latinx undergraduates. In the section that follows, I will critically examine the literature pertaining to peer mentoring at the doctoral level. Peer mentoring for doctoral students aligns with a shift at other levels of education toward multi-layered, vertical mentoring, and away from traditional mentoring structures. Finally, I will outline critical gaps in the body of

literature relating to peer mentoring at the doctoral level and will discuss how this dissertation will fill these gaps in order to advance the literature on peer mentoring at the doctoral level.

Challenges Faced by Black and Latinx Doctoral Students Within Institutional Climate

There is a great deal of evidence that Black and Latinx doctoral students face complex challenges within predominantly-white institutions that likely contribute to their low enrollment and graduation rates. A number of studies highlight the differing and nuanced forms of racism that Latinx and Black students face at the doctoral level. In their phenomenological study, Truong et al. (2016) interviewed 26 doctoral students (including those identifying as Black, Chicana/o, and Mexican American) from various disciplines within a total of 21 institutions representing a wide range of geographic regions. The researchers found that participants faced two different types of vicarious (or secondhand) racism. Observed racism refers to instances where participants heard stories about or viewed racism directed at their faculty or peers. Trickledown racism refers to cases in which participants were affected by racism directed at their faculty mentors of color which then resulted in negative consequences for students, (e.g., a faculty member leaving the institution resulting in decreased support for these students).

Students also note their perceptions of enduring racially-motivated comments that disparage their intellect. For example, in a qualitative study (Espino, 2014) with 33 Mexican-American Ph.D.s who earned their doctorates in various disciplines at 15 universities, participants reported having their academic abilities questioned by members of the faculty. In another study, Williams et al. (2018) interviewed 25 Black doctoral students enrolled across 13 public research universities and found similar problems. Drawing on a critical race theory framework, the researchers elicited students' perceptions of racially-motivated comments about their academic ability from faculty.

Another important theme in the literature is that Black and Latinx students feel isolated and alienated within their doctoral programs. Pifer and Baker (2014) employed a phenomenological design to interview 31 full-time doctoral students in two academic departments within one rural university; they noted that students who perceived themselves to be different from members of their academic departments worried that this difference might prevent them from getting full support or endorsement from advisors and scholars in the field. Participants highlighted that this type of otherness resulted from their feelings of being excluded or treated differently within their academic programs or departments based on their personal characteristics. Williams et al.'s (2018) study, as referenced above, revealed similar feelings and experiences among Latinx and Black doctoral students due to a lack of same-race faculty and peers (which will be discussed further in a later section) in their programs.

Studies also highlight how Black and Latinx doctoral students struggle within the classroom environment as well as in their research endeavors. Gildersleeve et al. (2011) conducted ethnographic interviews with 22 Black and Latinx doctoral students from a total of 6 academic fields in three major research universities in different regions of the U.S. Participants noted how peers disregarded their contributions to class discussions and regularly tokenized them. Students also revealed that faculty members questioned their research interests, commitment to rigor, worldviews, personal and professional experiences, and ways of knowing. In one of the very few quantitative studies, Williams (2002) conducted a survey with a robust sample of 1,454 doctoral students and recent Ph.D. recipients who were registered at one of four large midwestern universities. A major finding was that white students reported more positive perceptions of the academic environment on campus and higher ratings of program satisfaction than students identifying as Black.

Mentoring Background and Functions

In the previous chapter I provided a brief background of mentoring and highlighted the critical role of faculty advisors, who typically serve as mentors to students at the doctoral level. In this section I will delve deeper into the foundational mentoring studies that have informed the higher education and organizational practices, and will expand on the differences between informal and formal mentoring.

Foundational Studies on Mentoring

Kram's (1983) groundbreaking work provides a foundation for understanding the process of mentoring: this has been widely drawn upon in both the academic and organizational literature on mentoring. In this influential study, 18 pairs of younger and older managers (in different phases of their relationship) within a large northeastern public utility were interviewed about their relationships with each other. Kram (1983) delineates two major areas of functions that mentoring relationships (described as developmental relationships) can offer. Mentoring can potentially strengthen the career development of employees (e.g., sponsorship, coaching, protection, exposure-and-visibility, challenging work assignments, learning the ropes of the organization to prepare for advancement opportunities). It can also offer psychosocial development (e.g., role modeling, acceptance-and-confirmation, counseling, and friendship, in order to develop a sense of competence, confidence, and effectiveness). Importantly, Kram (1983) notes that both the mentors and mentees can enjoy these same benefits.

 In this study, Kram also claims that a mentoring relationship contains various stages, each marked by a different development or achievement. The initiation stage marks the beginning of the mentoring process when the pairs of managers establish a relationship through mutual engagement (Kram, 1983; Sugimoto, 2012). During the cultivation phase, the range of mentoring functions (career or psychosocial) that are provided to the mentee occur at the highest

level (Kram, 1983) and the mentee starts to recognize their increasing sense of competence and their ability to better navigate through a new organizational system (Kram, 1983; Sugimoto, 2012). In the separation phase, there is a significant change in the pair's relationship due to structural changes within the organizational context and/or by psychological changes in one or both individuals. For example, one of the individuals may get promoted or experience a change in career goals, which will in turn affect the relationship. During the last stage of mentoring, redefinition, the relationship evolves into a new form, or the relationship ends.

Notably, Kram also surpassed the boundaries of the traditional mentoring model to explore other types of important relationships that exist in the workplace. In a second study exploratory in nature, Kram (1985) considered how relationships outside of the conventional mentoring arrangement in the workplace can offer unique opportunities for an individual's personal and professional growth. Kram (1985) examined supportive peer relationships for individuals at early, middle, and late career stages in a large, northeastern manufacturing company. Results from interviews with 15 individuals indicated that conventional mentoring relationships and peer relationships both have the potential to 1) support an individual's development at successive career stages and, 2) provide a spectrum of career-enhancing and psychosocial functions (some specific functions overlap in both kinds of relationships). Kram (1985) also found key differences across conventional mentoring relationships and peer relationships: in conventional mentoring relationships, there are significant differences in age and hierarchical levels, while in peer relationships, one of these characteristics is typically the same for both individuals in the relationship. Peer relationships also appear to last longer than most conventional mentoring relationships. Notably, Kram (1985) asserts that peer relationships may offer unparalleled developmental opportunities that should not be overlooked: "they provide

a forum for mutual exchange in which an individual can achieve a sense of expertise, equality, and empathy that is frequently absent from traditional mentoring relationships" (Kram, 1985, p. 129). The results from this study suggest that "peer relationships offer an important alternative to conventional mentoring relationships by providing a range of developmental supports for personal and professional growth at each career stage" (Kram. 1985, p. 116). This dissertation reflects Kram's central notion that a wider range of developmental relationships in the workplace should be investigated; this may also be applicable to the field of higher education, where traditionally mentoring occurs between a faculty member and a student.

Formal and Informal Mentoring

Higher education and organizational literature also highlight the differences between informal and formal mentoring. As noted in the previous chapter, formal mentoring relationships are more likely to be assigned by the organization, are of shorter duration, and are focused on defined goals (Ragins et al., 2000). These relationships are thought to be more superficial and less comfortable than informal mentoring structures (Fagenson-Eland et al., 1997). Within formal relationships, the mentor and mentee typically communicate less frequently and effectively and lack chemistry (Fagenson-Eland et al., 1997). In contrast, informal mentoring is typically unstructured, does not have formal program agreements, and is based more on personal developmental needs (Kram, 1983; Tourigny & Pulich, 2005). Davidson and Foster-Johnson (2001) note that informal mentoring experiences result in greater outcomes than formal relationships, and further, such relationships are viewed as important to career and personal development, as they typically offer higher levels of psychosocial support (Fagenson-Eland et al., 1997; Ragins et al., 2000). However, as a result of participating in a formal mentoring program (that assigns individuals with each other), the relationship can also potentially develop

into an informal one with time (Davidson & Foster-Johnson, 2001). Regardless of the degree of formal structure, a number of benefits are associated with student-faculty mentoring relationships at the doctoral level especially, as was discussed in the previous chapter. However, Latinx and Black doctoral students experience significant gaps in faculty mentoring.

Latinx and Black Doctoral Student Experiences with Faculty and Mentoring

In chapter one, I provided an overview of literature related to 1) insufficient faculty support for Latinx and Black doctoral students within the traditional model of mentoring, and, 2) Latinx and Black doctoral students' negative experiences with their faculty members. In this section, I will provide detailed information on select literature and methodology from chapter one.

In one early study, Turner and Thompson (1993) interviewed a random sample of 37 minority women doctoral students (including Black and Latinx students) and 25 majority women doctoral students. They found that fewer Black and Latina doctoral student women had mentoring and apprenticeship opportunities than did their majority (white) women counterparts. Further, majority women in the study more frequently reported the presence of support networks within their academic departments. Black master's and doctoral ivy league students in Gasman et al.'s (2008) study noted that their advisors never helped them in any way and failed to come through when they really needed support. Participants also noticed that faculty seemed more available to other students. In a qualitative study of eight Black doctoral students, Patterson-Stewart et al. (1997) discovered that Black students held perceptions that their white peers received opportunities that they did not, particularly in the areas of writing and presenting. Johnson-Bailey et al. (2008) conducted a survey containing open and closed-ended questions with an impressively large sample of 586 Black students. The researchers found that Black

graduate students were excluded from after-class discussions and out-of-class socializing opportunities with faculty, which they believed often led to research opportunities with professors. When the participants perceived that they did receive support from white faculty, they considered the support to be limited and less than the support given to fellow white students (in line with the theme of insufficient faculty support noted above). As noted in the section above, Black and Latinx students often experience isolation within their academic departments based on their personal characteristics, including race. Particularly notable is a striking similarity in student accounts over time.

Importance of Same-Race Student-Faculty Mentoring Relationships

A number of studies show how important it is for students of color, particularly for Black doctoral students, to have mentors from their same racial/ethnic background (Barker, 2011; Ellis, 2001; Freeman & Taylor, 2009). In the previous chapter I briefly noted that the ways that Black and Latinx doctoral students interact with white faculty can at times be negatively affected as a result of faculty members not understanding minoritized students' experiences. Black students have unique experiences in higher education that differ from other student of color groups and white students (Barker, 2011), which may make supporting these students more difficult for white faculty members. Further, faculty members from majority backgrounds may not understand the various experiences of minoritized graduate students or may lack experience working with these populations (Barker, 2011; Thomas et al., 2007). However, given the very low numbers of faculty of color in the professoriate, there are simply not enough faculty of color to support racially underrepresented doctoral students of color (Gasman et al., 2008). Of all full-time faculty in degree-granting postsecondary institutions in the fall of 2016, 41% were white

males; 35% were white females; three percent each were Black males, Black females, and Hispanic males; and two percent were Hispanic females (NCES, 2016).

Researchers also highlight the benefits associated with students having same-race faculty mentors: being able to openly discuss their concerns, learning to effectively and professionally assert oneself as a racial minority within academia, discussing how to manage personal and academic identities, and learning how to engage effectively in professional interactions with peers around the topic of race (Jones et al., 2018). Importantly, Black students often seek out faculty mentors of the same race who can understand their unique cultural issues (Patton & Harper, 2003). Black doctoral students in Ellis' study (2001) noted their appreciation for other students or faculty of color who were able to both understand their experiences and validate their feelings. Students also expressed that having same-race peers or faculty as support systems was incredibly important and that they needed opportunities to talk with others who understood their experiences as Black doctoral students.

Peer Mentoring

Given the trends of low persistence and degree attainment rates among Latinx and Black students in doctoral education, the significant on-campus challenges due to their race/ethnicity, the lack of positive mentoring relationships with faculty, and the dearth of same-race faculty members to support them, it is important to explore how Latinx and Black doctoral students' peers might help to fill this void in the context of peer mentoring networks. Flores-Scott and Nerad (2012) highlight that the role of peers in doctoral education has received only passing scholarly attention, even though peers are a critical part of every doctoral learning community. Perhaps this is because doctoral education is typically thought of as an apprenticeship in which doctoral students learn primarily from their advisor (Golde & Dore, 2001; Kwiram, 2006).

Flores-Scott and Nerad (2012) aptly assert that: "The apprenticeship model is based on a hierarchical and vertical relationship between a faculty member (master) and a student (novice), where, through close one-on-one interactions, students learn how to do research" (p. 75). Following this, the vast majority of studies pertaining to student support at the doctoral level center around this traditional student-faculty relationship.

In the sections below, I will provide an overview of what the literature states about peer mentoring and explore the types of support that such mechanisms can provide, that the traditional model of faculty-student mentoring cannot. The vast majority of studies related to peer mentoring and its effects center on undergraduate students. In contrast with the literature at the doctoral level, there are a higher number of studies at the undergraduate level that focus explicitly on Latinx and Black students. These studies are also more rigorous and generally contain larger student samples than studies conducted within the doctoral education context. Therefore, I will first examine the effects of peer mentoring at the undergraduate level for Black and Latinx students. A review of studies on peer mentoring at the doctoral level will follow. This informed my dissertation work examining Latinx and Black doctoral students' experiences with peer mentoring.

Definition and Functions of Peer Mentoring

The literature that exists at the undergraduate and doctoral levels (to a lesser degree) provides important definitions of peer mentoring; scholars also discuss the important distinctions found within traditional mentoring and peer mentoring structures. Collier (2017) asserts that hierarchical mentoring, found in traditional student-faculty mentoring arrangements, refers to relationships that involve individuals from two different social positions, (e.g., faculty member– student, adviser–student, counselor–student). In contrast to hierarchical mentoring, peer

mentoring matches mentors with mentees who are roughly equal in age and power (Angelique et al., 2002; Collier, 2017; Terrion & Leonard, 2007). The main goal of peer mentoring is to enable students' academic and social integration into college (Morales et al., 2016). Jackson and Price (2019) note that in contrast to the traditional mentoring structure, multi-mentor networks may be critical to the "increasingly complex academic environment where a hierarchical mentoring relationship is no longer realistic, nor desired" (p. 102). The dominance of mentoring research focused squarely on dyad-based models has evolved into a "mentoring network" or "constellation" that encourages a broader and more flexible network of support rather than a single person expected to help students in a multitude of different ways (Jackson & Price, 2019; Molloy, 2005; Sorcinelli & Yun, 2007). Further, the multi-mentor model uses various "collaborative couplings" that are founded on cross-cultural and non-hierarchical beliefs that challenge ethical issues found in traditional mentoring, including the hierarchies that are maintained (Colvin & Ashman, 2010; Jackson & Price, 2019).

Peer mentoring can be seen as a model of mutual learning for individuals involved irrespective of their varying degrees of experiences and is especially highlighted as a method to support individuals who may be more vulnerable in higher education or less likely to progress successfully through their respective programs, such as students of color (Terrion & Leonard, 2007). This type of mentoring relationship supports students' successful initiation to new and different contexts and increases retention of those students from non-traditional backgrounds (Dodgson & Bolam, 2002). Further, peer mentoring can help students develop as learners as well as future professionals (Cartney & Rouse, 2006).

Studies also highlight the importance of peer-to-peer relationship dynamics and avenues for engagement that can facilitate a mentoring relationship and also delineate two categories of

supportive peers. For example, peers have many more opportunities for academic conversations and nonacademic socializing outside of the classroom, lab, and office settings than would typically be considered as appropriate for faculty-student interactions (Allen, 2015). Peers who share an advisor can offer advice based on their own first-hand experience of that advisor's work style, temperament, and expectations given that peers provide lateral exposure and perspective to one another (Allen, 2015).

Bragg (1976) asserts that two types of academic peers might impact a fellow student's socialization to doctoral education: advanced students and those who entered the program with the student. Advanced students are potentially a rich source of information and can provide a realistic view of the departmental culture (McGaskey et al., 2016). Further these students can offer insight into the "implicit expectations and norms" that exist in the department and may help new students navigate the doctoral process by way of sharing their own views regarding the selection of courses, advisors, and mentors (McGaskey et al., 2016). Similar to advanced students, peers who entered the program with a fellow student might provide formal and informal information such as knowledge and skills they have ascertained from coursework, their associations with different faculty, and their memberships in both campus and professional organizations (McGaskey et al., 2016). In addition, students are more likely to form support groups for writing, studying, and research with these peers (McGaskey et al., 2016). Importantly, they may operate as both sounding boards and cheerleaders, and can encourage one another through difficult moments in their programs. (Austin, 2002; McGaskey et al., 2016).

Positive Effects of Peer Mentoring For Latinx and Black Undergraduates

Peer mentoring programs serve a variety of important functions and have been found to support Black and Latinx undergraduate students in myriad ways, which include mitigating

challenges that are unique to these student populations. For example, peer mentoring has been touted as a mechanism to help improve college retention (Rodger & Tremblay, 2003) and has been found to improve academic achievement (Nora & Crisp, 2007; Ward et al., 2010). Such programs have also been found to encourage students to consider applying to graduate school and in helping them make important connections with graduate students and faculty (Luna & Prieto, 2009). Further, peer mentoring programs have been shown to help integrate students into their respective institutions (Moschetti et al., 2018) and support Latinx and Black students who are struggling academically or are at risk of dropping out (Phinney et al., 2011; Torres Campos et al., 2009). Scholars have also revealed how these programs positively affect the experiences of first-year college students transitioning to college and that participation can increase students' social connectedness and promote a sense of belonging (Hall & Jaugietis, 2011; Pérez et al., 2018; Sanchez, et al., 2006). Further, peers can play an integral role in supporting one another with learning and curriculum (Faucette & Nugent, 2012). Finally, peer mentoring programs have also been found to decrease attrition rates by encouraging positive academic and social outcomes for students and by countering the isolation and disengagement Latinx and Black students often face (Leidenfrost et al., 2011; Sanchez et al., 2006).

Peer Mentoring Literature at the Doctoral Level

As mentioned earlier, there is a much smaller body of literature on peer mentoring at the doctoral level compared to studies conducted with undergraduate students. In this section, I will delve into studies specific to peer mentoring at the doctoral level, devoting special attention to the following questions: What peer mentoring structures do institutions of higher education already have in place for doctoral students? What is being measured when researchers evaluate

the effectiveness of peer mentoring? Do peer mentoring structures positively affect doctoral student retention?

Conditions That Help Facilitate Peer Mentoring

A few studies in this review highlight conditions that help facilitate positive peer mentoring experiences for students. Meschitti's (2019) ethnography investigated how peer learning takes place among Ph.D. students at different stages of their doctorate. It also explored how peer learning supports the development of disciplinary knowledge and scholarly skills (e.g., presenting, writing, critical reasoning, and problem-solving) among ten research team members in a department of computer science in a Swiss university. Findings from interviews and observations showed that peer learning is enabled by team leadership among members. Additionally the researchers found that sustained dialogue and differences in students' academic backgrounds and expertise are necessary conditions for learning. In another study, Preston et al. (2014) drew on narrative inquiry to describe their peer mentorship experience in a Ph.D. educational administration cohort program in one Canadian institution. In their autoethnography, the three authors applied concepts of transformational learning theory to analyze their experiences. The researchers highlighted that peer mentoring flourished within the physical, logistical, and institutional features and structure of the doctoral cohort program (where students took classes together) and that mentoring was influenced by the proximity of shared office space. Another important characteristic cited was that each student had the freedom to mentor and be mentored by their peers in ways that addressed students' varied needs and abilities. In one of the very few quantitative studies, Grant-Vallone and Ensher (2000) surveyed 35 pairs of psychology graduate students who participated in a formal peer mentoring program (developed by a student group). In this program, first-year students were matched with more advanced students.

Although it is not clear if the sample included doctoral students, this study is important to include in this review as it is widely recognized in the peer mentoring literature. The researchers compared high and low contact peer mentoring relationships on types of support offered and found that peers in high contact relationships experienced higher levels of psychosocial and instrumental support. It should be noted that the researchers only gave information related to participants' marital status and gender. These notable benefits were also found in numerous studies conducted at the doctoral level, which will be discussed in the following section.

Instrumental and Psychosocial Benefits

The vast majority of studies found that peer mentoring structures provide both instrumental (career) and psychosocial benefits to doctoral students. In their autoethnography, Booth et al. (2016) discussed their role as peer mentors within the Edith Cowan University SOAR Centre in Australia, a formal peer-to-peer service where student ambassadors were hired to assist other students with problems specific to their research. The three researchers (who were Ph.D. candidates in education and accounting) noted that peer mentoring enhanced their own learning, fostered reflective practice, provided teaching and research support experience, created opportunities for professional networking, and supported their social needs. Notably, the only information provided on the researchers was their academic discipline and current professional role; no racial background was provided.

In their narrative case study of Writers in Training (WIT), a semiformal university cohort program, Mullen and Tuten (2010) explored the value of cohort mentoring for facilitating mentoring relationships. The program comprised 17 doctorate of education and doctor of philosophy students (including 4 males and 13 females). Students found the critique of their writing to be invaluable. Additionally, participants reported that they were able to support each

other in their goals and aspirations and expressed a strong sense of connectedness and

accountability to one another. The researchers noted that the study was diverse racially, however

they failed to present the total number of participants by racial group. In another study, Aitchison

(2009) conducted a retrospective evaluation of facilitated and structured research writing groups

in one large Australian metropolitan university. In addition to drawing on data from a focus

group and writing group meeting recording, Aitchison (2009) surveyed 24 current and past

writing group members (mostly female participants within the social sciences and humanities) on

reasons for joining and their experiences participating in the group. Results indicated that

participants joined explicitly because they believed it would improve their writing through the

process of submitting their writing for review by others. Participants also highlighted that they

valued learning how to critique their peers' writing. It is important to highlight that this study

fails to include an analysis section although it does detail the different data sources used.

In their mixed methods study, Webb et al. (2009) examined faculty-student and peer-to-

peer mentoring from both mentee and mentor perspectives at the University of Kentucky

Graduate Center for Gerontology. Peer mentors were paired with incoming students. Findings

from surveys (completed by nine recent graduates, 12 current students, and eight faculty

members) established that peer mentees viewed peer mentors as providing invaluable social

support, encouraging other students, and offering reassurance to them. Further, mentees viewed

peer mentors as social support and advice-givers, while mentees viewed faculty mentors as

responsible for direction and skill-building. Kumar and Aitchison's (2018) qualitative study

focused on the experiences of student participants who attended a ten-week Doctoral Writing

Course (DWC) that 1) developed their knowledge and expertise on doctoral writing and, 2)

prepared them to be facilitators in other doctoral writing groups for their peers. Seven peer

facilitators from the sciences and humanities, three program participants, and six academic staff were interviewed. All peer facilitators felt their involvement contributed to their writing expertise and noted how it was a socially-rich learning experience. Importantly, many participants valued that the program was peer-led and highlighted that they were more comfortable asking "beginner questions" (Kumar & Aitchison, 2017, p. 366) of their peers than their supervisors. In their case study, Lowery and Geesa (2019) sought to understand first-year doctoral student participants' experiences in a peer mentoring program. Through interviews and focus group data with 11 mentees and four mentors within the Ed.D. education cohort program at Ball State University, researchers found that mentoring conversations helped participants with goal-setting and pre-planning for comprehensive exams, selecting a dissertation topic, and professional goals and skills. Another important finding was that mentoring conversations increased mentees' self-efficacy: mentees noted their increased capability to successfully navigate their doctoral program as a result of mentors sharing their experiences and knowledge about what to expect in their program, as well as through their encouragement. Finally, mentors expressed the value of engaging in self-reflection about their own experiences as a result of mentoring. However, a major drawback of this study was that no participant demographic information was provided.

In a non-empirical paper, Hadjioannou et al. (2007) described their student-led peer mentoring and support group with four doctoral students and one professor. The group functioned to provide students with instructional support, emotional support, and assistance with participating in conferences. Participants also helped one another to improve their writing skills. As a result of participating in the group, the authors noted that they became more confident and competent users of the academic discourse of their discipline and further, that they informed

each other regarding practical aspects of being a doctoral student. Similar to other studies at the doctoral level, this article does not give any information on participants' racial background (only the age). Additionally, the authors do not provide any background information about the research site.

Mixed Results of Peer Mentoring Efforts

As discussed above, a number of studies indicated positive effects for both mentees and mentors as a result of participating in peer mentoring. However, a few studies highlighted mixed results that are important to examine. Erickson and Travick-Jackson's (2006) qualitative study focused on the experiences of doctoral candidate mentors who were assigned to provide mentoring to first-year doctoral students within a cohort program. Data were collected through a class assignment, a focus group with 14 doctoral candidates, and an electronic questionnaire completed by five members of the doctoral cohort. Mentoring was associated with leadership development, and further, doctoral candidates saw building community as a form of social support and value. However, mentors reported issues with communicating with mentees effectively (e.g., not hearing back from the mentee after reaching out and problems with scheduling a mutually-agreed upon meeting time). It's important to note that absent from this study was a fully-developed analysis section. Further, no information on sample gender, race, or even program year was provided. In another study (Chui et al., 2014), 12 doctoral students, including one international student (nine females, three males) from counseling psychology doctoral programs across the U.S. were interviewed about their experiences with peers in their program as well as their values and beliefs about peer relationships in graduate school. Participants reported a broad range of positive (e.g. collaborative and supportive) and negative (e.g. competitive and hostile) interactions with peers both inside and outside the classroom, in

research, and in clinical work. Compared to advisory and supervisory relationships, peer

relationships were generally less formal and more open. An important aspect of this study was

that the researchers employed a strong methodological approach. In addition to conducting

interviews, researchers in this mixed methods study used the peer relationship scale (PRS) as a

quantitative measure of perceived closeness among cohort peers.

Other Studies on Peer Mentoring

In other studies, researchers focused on how students and faculty defined mentoring,

examined the different types of peer relationships, and discussed advantages of peer mentoring

models. In their qualitative study, Noonan et al. (2007) conducted three separate focus groups

with four mentees, four peer mentors, and eight faculty mentors within one education department

to explore how each group defined and experienced mentoring, as well as what their expectations

were. The study reported participants' race/ethnicity, however the vast majority of participants

were white. Interestingly, each group defined mentoring differently: more-inexperienced

mentees defined mentoring as guiding, assisting, and keeping them on track. Peer mentors

(veteran students) defined mentoring as a personal relationship that acknowledges, encourages,

and supports. Finally, faculty defined mentoring as facilitating, socializing, and preparing the

mentee for a future professional role. In another study, Lee et al. (2014) conducted interviews

with six doctoral students enrolled in the School of Information at Florida State University to

explore types of peer relationships and information that is shared. Participants classified the

types of peers they engaged with as close peers (those who have shared interests or experiences

developed through spending time together in class), social/academic peers (those with similar

personal or professional interests), and "other peers" (those peers with whom students do not

interact often but discuss both everyday life and academic matters). Results found that work-

related information (e.g., coursework, research, academic activities) and everyday life information (e.g., relationships, hobbies, social events) were shared in all three types of peer relationships. Unsurprisingly, participants decided what to share and how much they were willing to share based on the closeness of the relationship (relational strength). Collier's (2017) conceptual paper discussed three relevant advantages of a peer mentoring approach. First, peer mentors represent a cost-effective way for institutions to address retention challenges as they are generally less expensive than hierarchical mentoring programs. Second, there is a larger number of potential mentors compared to available faculty members and staff. Third, peer mentors and mentees are more likely to share the same perspective on how they understand and enact the student role than those participants in traditional hierarchical mentoring relationships.

Studies Targeting Black Doctoral Students

Very few studies examining the effects of peer mentoring at the doctoral level focused explicitly on Black students (no studies focused on the Latinx doctoral student population). In their study, Minnett et al. (2019) explored how Black women develop and use peer mentorship as an act of resistance to navigate and progress through their doctoral programs. Drawing on Black feminism as a conceptual lens, this autoethnography presents an informal peer mentorship framework of three Black women PhD students attending a predominantly white institution. The researchers identified major themes of peer mentorship that they organized into three central tenets: radical coping, communal sista scholarship, and cultivation of an authentic holistic self. The authors note that radical coping "relates to the body and is evinced through conscious decisions made about how we present in the academy and society at large" (Minnett et al., 2019, p. 226). Communal sista scholarship refers to the mind and describes how students encourage one another with their individual goals. This tenet also comprises students' own deliberate efforts

to produce knowledge for and with other Black women. Cultivation of an authentic holistic self refers to the ways that support one another beyond their academic undertakings and provide a space to be their whole selves without rebuke (Minnett et al., 2019). Notably, this was the only study to provide complete biographical data of each author (including race, age, gender, religious background, class background, and ability status).

Apugo (2017) explored the use of peer relationships among 15 graduate millennial Black women enrolled in master's degree programs from different regions of the U.S. Although this study pertains to master's students, it is important to include in this review as the women in this study purposed their peer relationships to fill a void in support often satisfied through formal mentoring; this is also the underlying premise of this dissertation. Findings suggest that participants used their peer relationships for academic, professional, and emotional support that aided them in processing negative race-related behaviors. Data from this study also showed that peer relationships functioned as support mechanisms for students. Further, these relationships were responsible for students' overall well-being.

Holley's (2012) qualitative case study considered how University of Alabama's formal Tide Together Mentoring Program sought to introduce a team-based platform (faculty mentors, peer mentors, and academic support) to facilitate student success. Each student participant was paired with a faculty mentor and a student peer-mentor. The program targeted underrepresented students: the researchers conducted interviews with student mentee participants (19 out of 22 first-year participants were Black, 18 were female), faculty participants, faculty mentors, and peer mentors (two females, one identifying as Black and one identifying as white). As a result of the program, peer mentors and student mentees were able to socialize with students outside of their department and noted that they were able to build a sense of community.

Gaps and Final Thoughts

This literature review illuminates the different functions, models, and effects of peer mentoring structures. However, there are notable gaps that are important to highlight. The most significant gap in the literature is the absence of studies focusing explicitly on Latinx and Black doctoral students. The literature pertaining to peer mentoring is largely focused on the undergraduate level, with several studies highlighting the effects specifically for Latinx and Black undergraduate students. Within the significantly smaller body of literature pertaining to doctoral students, there are very few studies that target Black students and no studies targeting students who identify as Latinx. Further, numerous studies that showed positive effects of peer mentoring did not include participants' racial/ethnic background. Studies that included this information largely contained a white student sample. It is uncertain whether the positive instrumental and psychosocial benefits that were found would also be experienced by Latinx and Black students at the doctoral level. Additional studies focusing on these specific student populations might reveal different peer mentoring effects. This may include whether or not peer mentoring can help students navigate inherently racist programs/institutions and whether students perceive that peer mentoring helps reduce their feelings of isolation.

In addition, a number of studies failed to mention other important characteristics of both the sample and research site. Noticeably absent were sample characteristics, including participants' program year, socioeconomic status, and sexual orientation. This is particularly important to include given that students' intersecting identities may inform the ways that they experience the doctoral education environment. Students' multiple identities may also influence how they engage in peer mentoring. A number of researchers also failed to adequately describe the research sites from which they collected data. For example, were the institutions predominantly white? Were they located in rural areas or in cities? Were they public institutions

versus private? Following this, many studies in this review collected data from only one institution. Studies that examine peer mentoring within different types of institutions are needed given that institutional differences might also drive levels of financial resources, including the availability for support structures that may facilitate peer interaction.

Finally, the majority of studies presented in this review of literature focus on peer mentoring that occurs within an institutional-sponsored formal peer mentoring program or within a cohort. Although it is undoubtedly important to examine how students engage in peer mentoring within this context, students may also be initiating formal or informal peer mentoring with one another on their own (student-initiated). It is critical to investigate how students participate in mentoring that they themselves initiate and how this may differ from mentoring that occurs within an institutional or department-sponsored program. Relatedly, many studies in this review did not include mentoring that occurred within informal institutional-sponsored structures (e.g., social events, departmental gatherings, end of year celebrations). Investigating the ways that peer mentoring occurs within both informal and formal student-initiated structures and informal institutional-sponsored structures may help elucidate variations in how peer mentoring operates across different types of mentoring environments.

This dissertation seeks to fill these gaps by targeting solely Latinx and Black students, including three varied institutions, and accounting for intersecting identities. In addition, the study will span formal and informal mentoring contexts. The next chapter presents in detail the methods of the proposed study to support these research aims.

CHAPTER THREE: Methods

The purpose of this study is to examine how Latinx and Black doctoral students engage in peer mentoring and how they perceive its effects on their overall doctoral experience. To investigate the role of peer mentoring I conducted an in-depth qualitative study which comprised individual interviews with six Latinx and Black doctoral students who had experience receiving peer mentoring. Participants were selected from three doctoral-granting universities that represent a number of different institutional contexts to provide for site diversity. As discussed in chapter one, the framing of critical race theory (CRT) informed the interview protocol; in addition each student's interview operated as a counter-story to center students' own voices and experiential knowledge. The community cultural wealth framework (Yosso, 2005) also informed the protocol, as well as shaped the data analysis process.

The research questions that guided this study are:

1) How do Latinx and Black doctoral students seek and receive support from peers within their doctoral institution?

2) How do students perceive the function and impact of peer mentoring in their doctoral experience?

3) How do doctoral students perceive the relationship between peer mentoring and other sources of institutional support?

The research questions elicited student responses on what they specifically received from peer mentoring as well as the role that this type of support played in informing their experiences as doctoral students. I will first provide some background on the terms "function" and

"institutional support" that correspond with research questions two and three: "function" refers to students' perceptions of what peer mentoring provides them (e.g., academic support, career-related guidance, navigating racism on campus, emotional support). The phrase "institutional support" includes individuals in formal positions within the institution (e.g., major professor, advisor, faculty, departmental staff) as well as institutional-sponsored student support programs or offices, such as student affairs, student organizations, writing centers, and/or affinity groups.

Rationale of Qualitative Research

This study employed a qualitative approach, which is the most appropriate when examining various nuances of human behavior in its social context (Gonzalez, 2006; Lincoln & Guba, 1985). A qualitative approach underlies the goals of this study which includes capturing how student interaction and behavior with respect to receiving support from one another might vary under a number of different contexts. This type of phenomenon can be quite challenging to measure quantitatively. Additionally, qualitative research methods fit this study's goal of developing a nuanced picture of the problem that is being investigated (Creswell et al., 2007) while illuminating numerous factors that inform how and why students locate peer support and what this support consists of. Qualitative methods further facilitate the application of counter-storytelling in keeping with a CRT theoretical frame: interviews are ideal modes of eliciting students' points of view that are likely to counter majoritarian views of racial privilege (Solórzano & Yosso, 2002).

Study Design

I choose three doctoral-granting universities with pronounced differences in their institutional contexts to investigate the ways in which the nature of peer mentoring and its subsequent effects on students' experiences might vary based on institutional factors. Six Latinx

and Black doctoral students across each of the three universities were included in the study. I employed a purposive criterion sampling strategy (Miles & Huberman, 1994; Patton, 2002) to screen for participation in the study. The sample was maximally varied based on institutional context, academic discipline, race, and social identity (e.g., sexual orientation, gender identity, social class). Finally, participants were recruited through a snowball sampling strategy. In the next sections, I describe the rationale for these decisions and details surrounding how I carried them out.

Participant Sites

The sampling approach for this study began at the level of the institution. Institutional sites served as typical, information-rich cases (Patton, 2002) for sampling Black and Latinx doctoral students. I chose three universities that represented a number of contrasting institutional contexts for doctoral study. I selected these institutions in order to investigate how the type of support that students receive and the effects of such support might differ across a number of differing institutional factors, including: selectivity, racial composition, control (public/private), prestige, ranking, and geographical setting. These factors enabled investigation of peer mentoring under different institutional conditions, especially those appearing in the literature as important in the experiences and success of Latinx and Black students.

For example, students of color often cite the campus racial climate at predominantly-white institutions (PWIs) to be unsupportive and unconcerned with both their needs and desires (Allen et al., 1991; Feagin et al., 2014; Woldoff et al., 2011) which may translate to a greater urgency for students to form peer support networks. Alternatively, students at minority-serving institutions may have numerous same-race peers with whom to interact, potentially informing the quality of peer mentoring they receive as well as their ease and comfort in establishing close peer

relationships. Other institutional factors such as level of selectivity and public/private designation are important to consider as they may undergird the overall campus racial environment. Institutional differences might also drive levels of financial resources, including the availability for support structures that may facilitate peer interaction. The three research sites offer a strong contrast of various institutional factors including student enrollment by race, geographic region, selectivity, research classification, and public/private control.

The first site, Public U., is a selective, R2, urban, public university. Public U. is also a minority-serving institution (MSI) based through its designation as an Asian American and Native American Pacific Islander-Serving Institution. This institution has an undergraduate enrollment of 12,595, and graduate enrollment of 3,394. Total graduate enrollment by race/ethnicity for the fall of 2018 was: Black 9%; Latinx 8%; White 55%; and two or more races: 2%.

The second institutional site, Private U. is a highly selective, R1, elite, private, religiously-affiliated, predominantly-white university. This university is located in an affluent suburban area in the Northeast with an undergraduate enrollment of 9,370 and a graduate/professional enrollment of 4,801. Total graduate enrollment by race/ethnicity for the fall of 2018 was as follows: Black 3%; Latinx 6%; White 53%; and two or more races: 3%.

The third site is a moderately-selective, R1, rural, public flagship, land-grant university. This institution has an undergraduate enrollment of 23,845, and graduate enrollment of 8,337. Total graduate enrollment by race/ethnicity in 2018 was: Black 6%; Latinx 10%; white: 56%; two or more races: 3%. See Table 1 for institutional site characteristics.

Table 1

Institutional Site Information

Site	Selectivity	Geographic Setting	Enrollment by race	Research level	Other Info	Graduate Enrollment
Public U.	Selective	Urban-commuter	Black 9% Latinx 8% White 55%	R2	-Minority-serving institution[a]	3,394
Private U.	Highly selective	Affluent suburb	Black 3% Latinx 6% White 53%	R1	-Elite -Religiously-affiliated -PWI[b]	4,801
Flagship U.	Moderately Selective	Rural	Black 6% Latinx 10% White 56%	R1	-Public flagship -Land-grant university	8,337

Note. [a] Minority-serving through its designation as an Asian American and Native American Pacific Islander-Serving Institution.

[b] PWI= predominantly-white institution.

Participant Sampling

Participants in the study comprise six Latinx and Black doctoral students total (one student from Flagship U., two students from Public U., and three students from Private U). I utilized a purposive criterion sampling strategy (Patton, 2002) that I will detail below. Purposive criterion sampling (Patton, 2002) is appropriate given the focus of the research questions which calls for a sample that includes a specific student demographic. The reasons for sampling Black and Latinx doctoral students includes: the various documented challenges these student populations face on campus due to their racial identification, their high levels of attrition present

at the doctoral level, and finally, their low shares of doctoral degree attainment. Perhaps most importantly, literature provides strong evidence that indicates an absence of faculty mentoring for these student populations at the doctoral level, which the role of peer mentoring may help to address. Finally, given that peer mentoring is the phenomenon that I will be investigating in this study, students who have experience receiving peer mentoring were chosen as a primary criterion.

The criteria for participant selection included students who 1) self-identified as Black and/or Latinx; 2) were current students enrolled in a research-oriented terminal degree leading to the dissertation; 3) completed at least one semester in their doctoral program, and, 4) had received at least one type of support (as previously defined in chapter 1) from at least one peer within their department or institution. Students who were mixed race but identified as Black and/or Latinx were eligible for inclusion. Students enrolled in certain professional degrees such as the J.D. or M.D. were not included in the study as I aimed to include students who operated within degree programs that were relatively similar in structure. This allowed for me to conduct a cross-case analysis. Given that peer mentoring can take place at any point in a student's doctoral tenure, participants in any year of study were permitted to participate. However, students should have completed at least one semester in their doctoral program. First-year, first-semester students were not eligible to participate as they may have not yet had the opportunity to receive peer mentoring. I excluded students who held J or F visas who presumably had a different cultural context than students who had gone through most or all of their schooling in the U.S.

Although there is no straightforward answer or consensus surrounding how many participants should be interviewed in a qualitative study, Sandelowski (2001) recommends that

the sample size should be large enough to allow for a "textured understanding" of the phenomenon that is being studied, but small enough so that the "deep, case-oriented analysis" (p. 183) of qualitative data is not prevented. Fusch & Ness (2015) highlight the importance of saturation when determining how many participants to include in a qualitative sample. Scholars note that saturation is reached when the researcher's ability to secure additional new information has been reached (Guest et al., 2006), and when additional coding is no longer needed (Guest et al., 2006). Importantly, Fusch and Ness (2015) note that there is no "one size fits all" approach when determining the number of participants to achieve saturation, as qualitative designs are not universal. However, Guest et al. (2006) highlight that data saturation can be reached at the point of six interviews. In alignment with this recommendation, the sample consisted of six participants across the three institutions.

I attempted to represent students with a range of social identities to be included in the study in order to strengthen participant diversity. Although race was a primary factor of interest, students may experience peer mentoring differently according to their other intersecting social identities, such as gender identity, sexual orientation, religious background, and social class. In the participant screening survey (see Appendix C), I asked students to select from a number of different salient identities that may resonate with them. Students in this study held a range of different identities, such as bisexual, immigrant, queer, low-income, and first-generation.

I drew on maximum variation sampling (Patton, 1980) to increase the confidence in common patterns that arose in students' experiences with peer mentoring and in order to describe any unique variations in how students received support from one another within different

disciplinary environments. In addition to considering the institutional context, the ways in which

students experience doctoral education can differ dramatically among different disciplines

(Gardner, 2007; Golde, 1998). Golde and Dore (2001) aptly highlight that ascertaining how

distinct disciplinary cultures "play out" within institutions is critical to both understanding and

improving doctoral students' experiences. Academic disciplines have distinct cultures that can

shape student behavior (Austin 2002; Becher 1987; Bersola et al., 2014) and inform how

students connect with and support one another. For example, students in the sciences often spend

more time in laboratories than students in non-science fields such as the humanities (Gardner,

2007; Golde,1998), which may facilitate additional opportunities for peer relationships to take

hold. I maximized the variety of disciplines represented in the study in order to examine the

nuances of peer mentoring relationships that may be informed by the norms and values of

students' respective disciplines. Students represented five different disciplines, representing the

life sciences, social sciences, education, and engineering.

In addition to the goal of achieving maximum diversity of participants within different

disciplinary contexts, I attempted to include students who received support from one another

within both formal/informal institutional-sponsored and student-initiated settings. I did not insist

on this given the underrepresentation of Latinx and Black students at the doctoral level. This

strategy can help elucidate variations in how peer mentoring operates across different types of

mentoring environments. Institutional-sponsored settings include informal (e.g., social events,

departmental gatherings, end of year celebrations), and formal structured (e.g., dissertation

writing group, department-run writing retreat, cohort program, peer matching set-up) avenues for

students to engage in peer support. Alternatively, students themselves may initiate and establish

formal and/or informal structures to engage in peer mentoring. Formal contexts may include instances where students set up a structured writing or study group where they meet regularly to work on a specific goal, whereas informal contexts may include students deciding to meet once a week for meals or coffee to share experiences and/or advice. Again, I will did not insist on maximizing the sample based on this factor, given the overall underrepresentation of Latinx and Black students at the doctoral level. The six peers in this study each discussed two of their most influential peers (for a total of 12 peer relationships represented). Most of the student-peer relationships (80%) in this study were student-initiated. Half of all peer relationships were informal and only one was solely formal. Five peer relationships were both formal and informal in nature.

Recruitment

I sought nominations of eligible participants from knowledgeable individuals at each institution as well as from my doctoral student peers and faculty. Within the three institutions, I emailed 1) academic program directors whose constituents included doctoral students and/or Black and Latinx student populations specifically, and 2) faculty within a variety of disciplines that offered the doctorate/Ph.D. (See appendix A). I asked individuals if they could send a recruitment email out (see appendix B) to all current doctoral/Ph.D. students in their respective departments and if they could send the email out through graduate student/student of color list serves. I also verbally asked my doctoral student peers and faculty members if they knew of any students within the three universities who fit the participant criteria. If these peers had any potential participants in mind, I asked them to send the recruitment email mentioned above to those students on my behalf. Additionally, I asked faculty within my institution if they could

connect me with faculty/administrators they had relationships with within the three institutions. If they did, I asked them to connect me with these individuals by email.

After I generated the list of eligible participants who had completed the survey within the recruitment email mentioned above, I employed snowball sampling to seek out "information from key informants about details of other information-rich cases in the field" (Patton, 2002; Suri, 2011). Within the email that I sent to qualified students within the three institutions inviting them to take part in the study, I solicited recommendations of other students within and outside of their department who fit the participant criteria. Any students who were recommended were contacted via email. The decision to employ this sampling method was necessary in large part due to a lack of institutional data on doctoral enrollment by race and discipline for potential research sites. As a result, I was not able to determine if certain sites were viable by virtue of having an adequate number of Latinx and Black doctoral students who could participate in the study. Also, given the dearth of Latinx and Black students enrolled in doctoral education (Gardner, 2008), random selection of participants was not possible. As a result of this methodological approach and as with any qualitative design, this study did not have a representative sample and consequently the results are not generalizable to all Latinx and Black doctoral students across departments and institutions.

The recruitment email that I sent out to potential participants for involvement in this study included a web-based survey (see appendix C) that screened for participants who matched the participant criteria mentioned earlier. The web-based participant screening survey included the following questions: Have you received (or currently receive) support, advice, and/or

guidance from another (or multiple) peers who are enrolled in a doctorate program within your department/institution (who you consider to be important to your progress and success as a doctoral student)? The screening survey provided a list of the different types of support peers may receive along with examples. Students who indicated that they had received support from at least one peer were prompted to indicate how many peers they received support from, their peers' respective departments, the type of support they received from each peer, and whether their peers were students of color. Additionally, the survey prompted students who indicated that they did receive peer mentoring to answer the following question: where did you receive support from another student or students in your doctoral program? a) within an institutional-sponsored formal or informal setting, b) within a student-initiated formal or informal setting, or c) if other, please clearly describe.

Among students who met the criteria, I chose participants with the goal of maximizing the diversity based on race, academic discipline, and social identity (e.g., sexual orientation, gender identity, social class). Once individuals were identified for participation, I invited them formally through an email to take part in the study (see appendix D). In order to increase participation in the study, students who participated were given a $25.00 gift card incentive to a local restaurant or coffee shop.

Interviews

I conducted individual semi-structured interviews (Rossman & Rallis, 2012) virtually by using Zoom; this format was appropriate given the novel COVID-19 pandemic. The interview protocol employed key facets of CRT and community cultural wealth to elicit rich and detailed accounts (Lofland & Lofland, 1995) of participants' experiences receiving peer mentoring. I

scheduled interviews lasting sixty minutes in length with students who were identified for participation. The interviews were recorded digitally utilizing the Zoom recording feature. I uploaded all interviews to a secure database and then transcribed each interview through the use of an online transcription service. After transcription was complete, I deleted all interview recordings from any electronic devices that were used. Participants' personal information were protected through use of pseudonyms within transcriptions. Additionally, any institutional information was obscured, including the names of campus-related programs, initiatives, and organizations that students mentioned during interviews.

The interviews had several objectives: this included uncovering different avenues through which students locate peer mentors and to understand what students received from peer mentoring (e.g., emotional/social support, academic-related guidance, help with navigating racist academic environments, professional development). Additionally, interviews served to examine how peer mentoring informed students' overall experiences in doctoral education (e.g., helps them persist through different types of adversity, reduces feelings of isolation, provides a sense of belonging). Another objective of the interviews was to understand how students perceived their engagement with peer mentoring among other institutional support structures on campus. For example, does peer mentoring help to fill in the gaps in support that exist within institutional support offices or does it supplement the guidance they receive from their major professors/advisors? Finally, the flexibility associated with semi-structured interviews allowed for participants to elaborate on information that was important to them but may not have originally been viewed as relevant by the researcher (Gill et al., 2008).

Critical Race Theory

Critical race methodologies use a CRT lens to uncover experiences with multiple forms of oppression in education and further, to "challenge the Eurocentricity of traditional research paradigms and offer a liberatory and transformational meaning to academic research (Huber, 2008, p.166). A major theme of CRT is the recognition "that the experiential knowledge of students of color is legitimate, appropriate, and critical to understanding, analyzing, and teaching about racial subordination in the field of education" (Solórzano & Yosso, 2001, p. 473). An approach that critical race theorists draw upon to recognize the experiential knowledge of communities of color is through the use of counternarratives or stories that seek out the voices from those who can speak firsthand about the ways that they have been oppressed (Delgado & Stefancic, 2001; Harper et al., 2011). Scholars note that counternarratives are instruments that are used to convey stories that are often untold among those communities who have been marginalized (Delgado & Stefancic, 2001; Harper et al., 2011). Further, "counternarratives offer a racially different outlook and challenge the assumed universality of stories told by those who are in power—stories that are erroneously thought to be commonly shared by white students and racial/ethnic minorities alike" (Harper et al., 2011, p. 184).

In connection with the theme of centering experiential knowledge, the interviews leveraged the counter-story framework within CRT to center the voices of those located at the margins of higher education and to provide a space for students to name their own realities (Ladson-Billings, 2010). Each student's interview operated as a counter-story, where Latinx and Black students were asked to tell their own stories- in their own voice- about the ways that their peers drew on their cultural strengths to provide support within inherently racist academic environments. Students were also asked to reflect on the steps they took to create their own

networks of support. Huber (2008) highlights that counter-stories are "powerful tools to challenge majoritarian stories rooted in a dominant Eurocentric perspective that justify social inequities and normalize white superiority" (p. 167) and humanize the many injustices that people of color endure (Huber, 2008).

The decision to draw on the use of counter-stories during interviews demanded that I acknowledge key facets of CRT during the interviews. Specifically, the interview protocol (see appendix E) incorporated as a philosophical assumption the CRT tenet that underscores racism as both endemic and deeply ingrained in American life (Ladson-Billings & Tate, 2006). As a facet of American society, the very structures, practices, policies, and procedures that govern higher education institutions are rooted in racism and function to oppress and hinder the success of students of color. Non-leading grand tour questions were used to help students reflect on their salient identities that came up for them in their doctoral experiences. Questions were also leveraged to elicit accounts of what the departmental/ institutional climate was like for students, and what it was like for them to operate in different spaces (e.g., classrooms, social gatherings, labs, research meetings, departmental events). Finally, grand tour questions functioned to help students reflect on what it was like to obtain support in their department/institution. For example, students were asked to consider how their different identities influenced the support they received. Importantly, I will discuss (in the findings and discussion sections) the departmental/institutional aspects that students find to be challenging, oppressive, or racist, to the extent that students bring this up. Again, the grand tour interview questions were non-leading and allowed for students' own voices to come through. Interview questions that focused on peer mentoring built off of these grand tour questions and focused on the ways that peer mentoring provided students with the tools for navigating their doctoral experience.

Community Cultural Wealth

I also drew upon the community cultural wealth framework (Yosso, 2005) during interviews; this framework can be viewed as an integral offshoot of CRT. A major role of critical race methodology in education is to undercut deficit-informed research practices that work to silence the voices of people of color and to instead position their racialized experiences as collective sources of strength (Solórzano & Solórzano, 1995; Valencia & Solórzano, 1997). Aligned with this framing, Yosso's (2005) community cultural wealth framework underscores the various assets that exist within communities of color, including navigational, social, aspirational, linguistic, resistant, and familial capital. Although marginalized students and their families possess cultural capital, the field of education largely rejects, devalues, and excludes their ways of knowing (Winkle-Wagner, 2010). This dissertation instead focused on surfacing the strengths and resources inherent to Latinx and Black communities and the ways that this manifests within peer mentoring relationships in doctoral education.

The interview protocol underscored the "knowledge, skills, abilities and contacts possessed and utilized by communities of color to survive and resist macro- and micro-forms of oppression" (Yosso, 2005, p. 77) and focused specifically on how Black and Latinx doctoral students employed navigational, social, and resistant forms of capital. The interview probes functioned to help students reflect on how they drew on their own social capital and agency to establish and develop helpful connections with their peers. Additionally, the protocol guided participants to think about the specific ways that their peers provided them with the tools to navigate through different aspects of doctoral education. Participants were asked to reflect on how the guidance and support they received from peers helped them resist or challenge racism and/or negative messages within their respective departments/institutions (to the extent that

participants brought up such challenges). I conducted a pilot study with doctoral students of color surrounding their general experiences with receiving different types of mentoring within their doctoral programs. This informed the content and structure of this study's interview protocol. I then piloted this protocol with one Latinx doctoral student and one Black doctoral student, making revisions to the protocol after each pilot interview.

Protection of Human Subjects

Numerous steps were taken to ensure that I protected participants' confidentiality and anonymity and to ensure that all data was stored securely. Each participant's Zoom audio recording was stored in a folder that was password-protected and located on a departmental server. Once the transcription of each interview was complete, all original recordings of each interview were destroyed/deleted off my personal laptop. The first draft of each participant's transcript, which contained identifiable information, was also stored on the password-protected departmental server. Participants who consented to take part in the study were assigned a random number as their participant ID number. The file with participant ID numbers, participant names, their pseudonyms, and participant contact information was stored in an Excel file on a password-protected departmental server. The transcripts were then de-identified by replacing proper nouns with pseudonyms.

Given the small numbers of Latinx and Black students present in doctoral education departments, this study had more than the usual danger of a breach of confidentiality. Given this, I thoroughly went through each transcript and obscured the details of each participant in different contexts that may have revealed their identity. I disguised any features of students and contexts they mentioned in interviews including but not limited to: their departments, institution, the names of campus-related programs, organizations, institutional offices, staff members, peers, and

faculty they mentioned during interviews. The final transcripts which were de-identified were kept on a password-protected Boston College Google drive folder.

The prospective participants were given a link to the informed consent form (see appendix F) that went over the purpose of the study, what their participation entailed, and any risks associated with participating in the study. The informed consent form was in the format of a web-based online survey. Prospective participants were able to take as much time as they needed to make a decision about participating in the study, and were able to ask the researcher any questions they had. If the prospective participant wished to participate, they electronically signed and dated the informed consent form. At the time of the interview, I reviewed the consent form again with each participant and obtained verbal consent (second time consent) before starting the interview. Participants were given the opportunity to leave the interview if they wished, even if they had completed the online consent form. The informed consent forms and web-based surveys that screened for participants were downloaded and stored on a password-protected departmental server. The information of individuals who were eligible to participate in the study as well as those who were not eligible were protected and stored on a secure departmental server. Finally, those individuals who connected me with potential participants or sent the recruitment email out to students on my behalf were not made aware of whether or not the potential participant took part in the study.

Trustworthiness

I drew upon multiple strategies to reduce potential researcher bias and to increase the trustworthiness of this study. An important aspect of trustworthiness to consider is validity, which can be defined as the degree to which participant's accounts accurately reflect or represent their realities of the phenomena at hand and are credible to them (Schwandt, 1997). This study

followed the two-dimensional framework put forth by Creswell and Miller (2000) which

suggests that choosing validity procedures is largely dictated by a) the lens researchers select to

validate their studies, and, b) the researcher's own paradigm assumptions or worldviews.

Following the former point, I drew upon multiple lenses to determine the credibility of this

study, including: 1) my own, 2) the participants', 3) and persons who were external to the study.

Within each lens I followed the validity procedure that was aligned with the critical paradigm

(Creswell & Miller, 2000).

Mason (2002) highlights the importance of "thinking critically about what you are doing

and why, confronting and often challenging your own assumptions, and recognizing the extent to

which your thoughts, actions and decisions shape how you research and what you see" (p. 5).

Drawing on my own lens, I engaged in the process of reflexivity to consider how my own

identities, perceptions, and experiences might shape the findings of this study. Within the

positionality section of this chapter I will disclose the different aspects of my lived experiences

that may play a role in how I interpreted participants' accounts in order to improve the validity of

this study's results.

Second, I verified with participants that I had accurately represented the content and

themes of their stories. This procedure attempts to "respect and support participants in a study,

not further marginalize them" (Creswell & Miller, 2000, p. 128). Rather than interpreting

participants' respective accounts on their behalf, I ensured their voices were central through the

use of member checks. After I went through the first phase of analysis (holistic content analysis)

and within two weeks of the interview, I sent each participant my written version of their

counter-story as well as emerging themes from their interview. I asked each participant to

indicate whether the written story was correct and accurately reflected their experiences. I gave

them the opportunity to respond in writing or to schedule a conversation with me to share any

aspects of the story or themes that needed correcting or revising. After I received participants'

feedback, I made any necessary changes to their counter-story to ensure that it accurately

reflected their experiences. I gave interviewees two weeks to respond after receiving the request

for fact-checking and feedback. All participants responded to my request and clarified certain

questions I had (including the ways that I de-identified their accounts), provided edits to their

counter-stories, and contributed additional text to certain portions of the counter-story that were

not clear. This strategy enabled me to ensure that I accurately represented the meanings given by

Latinx and Black doctoral students to their experiences receiving peer support, in order to

enhance interpretive validity (Maxwell, 1992). This practice also underscored the importance of

"naming one's own reality" which is central to CRT (Creswell & Miller, 2000; Ladson-Billings

& Tate, 2006).

Finally, I relied on the lens of those who were external to the study to establish credibility

during the analysis phase. One peer coder and I independently coded the interview transcripts

until we achieved an interrater reliability rate of at least 80%. I will provide further details on this

process in the analysis section. Peer reviewers are integral to research studies as they play the

role of devil's advocate, challenge the researcher's own assumptions about the data, and ask the

difficult questions surrounding the researcher's interpretations (Creswell & Miller, 2000; Lincoln

& Guba, 1985). Through carefully selecting multiple validity procedures that incorporate my

own lens as well as those of the participants' and a peer reviewer who was external to the study,

this study's credibility will be greatly enhanced.

Positionality

The concept of researcher as research instrument is incredibly significant in conducting qualitative research (Denzin & Lincoln, 2003; Marshall & Rossman, 1995). Chenail (2011) underscores that "it is through the researcher's facilitative interaction that a context is created where respondents share rich data regarding their experiences and life world (p. 255). As a researcher my accumulated experiences, diverse relationships, and preexisting knowledge reflect the ways in which I engage with different aspects of the research process. I am an Indian-American woman who grew up in the city of Lowell, Massachusetts. My parents immigrated to the United States before I was born and faced repeated and ongoing adversity as they tried to "make it" in this country as people whose racial and religious identities were located at the margins. My parents often remained silent in the face of struggle and pushed forward as a result of their dream to give my brother and I a life marked by opportunity.

I was made aware that my skin was the wrong color in every context I found myself: during my time at school, within different jobs I held from a young age, in interactions with neighbors on our street, and on outings with my family in New England. These ongoing racialized experiences have undoubtedly informed this study's research questions and the goals of this study that include empowering students located at the margins of academia. My myriad experiences have also underscored the theoretical frameworks I have selected that a) explicitly surface the structures and practices in doctoral education that counter the progress of marginalized groups, and, b) uncover the inherent assets and resources that are found in communities of color that serve as a source of empowerment.

I also must acknowledge that I do not identify as Black nor do I identify as Latinx. My situatedness as an Indian-American daughter of immigrants is vastly different from that of the participants in this study. The preexisting knowledge that I carry surrounding the experiences that Latinx and Black individuals face has been ascertained secondhand through college courses, texts authored by Latinx and Black individuals, and hearing about the lived experiences from my friends, peers, and former students. Therefore I cannot and should not assume that I fully understand everything that participants reflect upon and instead must defer to them to explain, clarify, and expand on their different accounts. Another point of reflection includes the ways in which my career has shaped my personal and professional goals of addressing systemic oppression and racism in higher education.

Prior to beginning my doctoral degree I held roles in diversity and inclusion offices within two universities that impacted the work I have been engaged in ever since. My career roles have created an indelible impression on the ways in which I have learned to advocate for and address the concerns of minoritized graduate students. The range of challenges that Latinx and Black students specifically endured, which I witnessed or heard accounts of first-hand, pushed me to investigate these challenges more deeply. The cumulative effects of an educational system that was geared towards the advancement of white students proved to be too much for Latinx and Black doctoral students with whom I worked. Many of these students left their programs without completing their degrees. The feelings I had of being utterly helpless during these events instilled in me the desire to seek out and elucidate mechanisms that help improve the experiences of these student populations.

Finally, my experiences in my own doctoral program have greatly informed the focus of my dissertation. Throughout the years, my peers within and outside of my program have provided me with guidance, encouragement, hope, and perseverance. There were many instances wherein I was anxious to seek out the help of faculty members for fear that I would appear incompetent. I felt safe in asking my peers (for) anything-there was no question that was off limits in my discussions with them. They are my foundational support and they are the ones who have lifted me up and pulled me through numerous moments of difficulty. These experiences have undoubtedly shaped my research direction.

Although my experiences, perceptions, and situatedness are inextricably linked with my role as researcher, I have worked to ensure that I accurately represented the accounts of participants. I have outlined multiple strategies that I drew upon to ensure that participants' reflections, perspectives, and voices are consistently centered and to ensure that the results of this study are true.

Analysis

I implemented a two-part analysis of the data collected throughout this study, drawing from both holistic-content and constant comparative analysis to answer the research questions. Holistic-content analysis is a method used to explore narrative material that involves identifying major themes while keeping participants' entire stories or transcripts intact (Iyengar, 2014; Lieblich et al., 1998;). Iyengar (2014) notes that "one way to retain the kernel of the stories is to look at these stories in its entirety rather than dividing the story into smaller sections" (p. 63). This particular form of analysis is used to preserve the essence of participants' stories and to capture their personal lived experiences through their own meaning (Charmaz, 2011).

Importantly, holistic coding is employed to "grasp basic themes or issues in the data by absorbing them as a whole rather than by analyzing them line by line" (Dey, 1993, p. 104). As Dey suggests, analyzing each link or phrase can make it difficult to preserve the essence of an individual's experiences and can further take the researcher's attention away from the underlying themes of the text (Iyengar, 2014). Importantly, a holistic content approach can help retain the researcher's own intentions without detracting from the spirit of the story (Iyengar, 2014).

This strategy is aligned with the application of a critical race methodology and the study's goal of eliciting participants' counter-stories of how they engage with peer mentoring on campus. CRT further highlights the important role of centering the voices and experiential knowledge of those who are located at the margins of society. The use of holistic content analysis in this study ensured that the essence of students' stories would not be lost during the analytic process. Finally, holistic coding was an appropriate method to employ given that I had an overall sense of what to investigate within the data corpus (Saldaña, 2016), and sought to surface students' stories that illuminated how students drew on their cultural assets.

I followed the holistic-content analysis process outlined by Lieblich et al. (1998) with the goal of keeping each participant's story intact to inductively locate themes and construct the overall summary of each participant. First, I read each participant's entire transcript (hard copy) several times with an open mind until a pattern emerged that is "usually in the form of foci of the entire story" (Lieblich et al., 1998, p. 62). After this step, I hand-wrote my initial impressions of the whole transcript and made note of any exceptions to my general impressions as well as any features of the transcript that seemed contradictory or contained unfinished descriptions. Following this, I noted themes or special foci that were present throughout the whole transcript. Lieblich et al. (1998) note that "a special focus is frequently distinguished by the space devoted

to the theme in the text, its repetitive nature, and the number of details the teller provides"

(Lieblich et al., 1998, p. 63). As a final step, I used the themes and special foci to construct a

detailed summary or "story" for each participant that contained: a) their overall experience in

doctoral education, b) how they answered the research questions, and, c) important aspects about

their experiences receiving peer support. Importantly, this holistic process allowed me to identify

themes in each transcript while keeping the larger context of how students experienced peer

mentoring and doctoral education intact. Although holistic-content analysis might have the

advantages of retaining the larger picture of participants' stories and foregrounding their

experiences, it also has the disadvantage of being subjective and not lending itself to looking

across participant cases.

The second phase of the analysis followed a constant comparative method (Miles &

Huberman, 1994) which involves breaking the data down into discrete "units" and coding them

into specific categories (Glaser & Strauss, 1967; Lincoln & Guba, 1985). Taylor and Bogdan

(1984) note "in the constant comparative method the researcher simultaneously codes and

analyzes data in order to develop concepts; by continually comparing specific incidents in the

data, the researcher refines these concepts, identifies their properties, explores their relationships

to one another, and integrates them into a coherent explanatory model" (p. 126). I used NVivo

software to code the data through a deductive process whereby the codes and themes that

emerged were informed by the research questions as well as the community cultural wealth

framework listed in Table 2.

Table 2

Application of Community Cultural Wealth Framework in Interview Protocol and Analysis

Navigational capital	-How peers provide one another with the tools/resources they need to maneuver through different aspects of doctoral education
Resistant capital	-How students use their agency to locate and construct alternative support structures
	-How peers support one another in resisting negative messaging about their value and/or worth
	-The ways that peers help one another to navigate departmental practices or procedures that do not serve them
Social capital	-Students' abilities to draw instrumental and social support through peer sources
	-Students' mentoring relationships with their peers

I used NVivo software to code and analyze each of the participant transcripts from the individual interviews. Given the centrality of the story and experiential knowledge in CRT, I maintained the context of these codes and phrases by keeping them attached to any surrounding vignette or story. I constructed a preliminary codebook that I referred to as I coded the data that contained definitions and examples of each code. Within each chunk of the transcript I assigned codes to those segments that were related to the research questions as well as the community cultural wealth framework. Within Nvivo, I created top-level codes (parent codes) that were aligned with the research questions and the community cultural wealth framework. Each top-level code contained a corresponding list of (child) codes that fit under the larger "umbrella" top-level code. I added new codes to the codebook that arose as I continued the coding process.

Some of these codes were not directly related to the specific aspects I've outlined within the two frameworks but were important in answering the research questions. In addition, I was open to adding new codes that surfaced other constructs from CRT and community cultural wealth that appeared in the interviews outside of the ones I've chosen to investigate.

In order to build trustworthiness in the study's overall findings and themes, one peer coder and I independently coded the same participant interview transcript. I selected the peer based on the following criteria: has working knowledge of the two theoretical frameworks; identifies as Black and/or Latinx; is currently enrolled in a research-oriented terminal degree leading to the dissertation or has graduated in the last two years; and does not hold a J or F visa. I constructed a codebook that included: 1) the name of the code, 2) a short description, and 3) a brief example of a transcript excerpt that the code can be applied to. I provided this codebook to the peer, along with the participant's full transcript. Each of us independently coded the participant's answers in the transcript by using the codebook.

I used the coding comparison query tool within Nvivo to compare the coding done by the peer coder and I. During the first round of independent coding we achieved a Kappa value of 0.54 which indicated a "fair to good agreement." We then discussed (over Zoom) aspects of the codebook that were unclear (including definitions and examples), differences in our respective coding, and our rationale for applying certain codes to text. Based on this discussion, I refined the codes and clarified the associated definitions after we collectively reconciled our differences in coding. For example, I expanded the definitions of certain codes, deleted codes that were similar, and clarified when certain codes would be appropriate to use. We then repeated this process with the second transcript and achieved a Kappa value of 0.86 which indicated

"excellent agreement". This helped build trustworthiness and fits with my original goal of

drawing upon multiple lenses to determine the credibility of the study.

CHAPTER FOUR: Participants and their Stories

In this chapter I will provide detailed background pertaining to the results of the

participant screening survey as well as descriptive information about each participant. I will also

provide information on the various characteristics of each peer relationship (e.g., informal vs.

formal, shared racial/gender background, student-initiated vs. institutional-sponsored). I will then

present the findings from the two-part analysis of the data collected throughout this study.

Beginning with holistic content analysis, I will provide each participant's intact counter-story

containing themes and special foci in the data. This will contain participants' overall experience

in doctoral education, how they answered the research questions, and important aspects about

their experiences receiving peer support. Finally, I will present the cross-case themes that

emerged through the constant comparative analysis phase by discussing top level codes related to

the ways in which students supported each other within the context of the

departmental/institutional climate.

Presence and Importance of Peer Support

The first step in recruiting the sample was to distribute the participant screening survey to

students within the three research sites; a total of eighty-four students completed this survey. Of

this total, 57 (68%) students were ineligible to participate in the study based on the screening

criteria: 42 students were still in the first semester of their doctoral program, three students

indicated that they were not enrolled in a research-oriented Ph.D. or doctorate degree, two

students did not identify as Latinx or Black, seven students held a J or F student visa, and three

students did not indicate whether or not they would be willing to participate in the interview.

Twenty-seven students were eligible to participate in this study. All students who were eligible

for the study received at least one type of support from at least one peer currently enrolled within

their department or institution. Most students who were eligible received a variety of different types of support. All participants are at least in the last stages of coursework or beyond. Table 3 details the demographic data for each participant.

Table 3

Participant-selected Pseudonyms, Program Information, and Self-identified Demographics

Pseudonym	Institution	Program	Enrollment status	Race/ethnicity	Gender identity	Sexual orientation	Other ID
Rose	Private U.	Life Sciences	Full-time	Biracial White & Black	Female	Queer	
Jimmy	Flagship U.	Engineering	Full-time	Caribbean Black	Cisgender male	Heterosexual	-First-generation -Pseudo-international
Miguel	Public U.	Education	Part-time	Latino	Cisgender male	Gay	-Immigrant
Laura	Public U.	Social Sciences	Full-time	Latina	Female	Bisexual	-First-generation -Documented immigrant -Lower-income
Meghan	Private U.	Social Sciences	Full-time	Black	Cisgender Female	Heterosexual	-First-generation -Lower-income
Sofia	Private U.	Education	Part-time	Latina	Cisgender Female	Heterosexual	

Note. Sofia is in her third year of the program and all other students are in their fourth year or higher.

Each student who was interviewed indicated on the pre-interview survey that they had received support from three or more peers, however due to time constraints, students discussed

only two of their peers during interviews. All of the students who were interviewed noted that their closest peers were either in their same degree program or studying within a closely-related field (e.g., a different program within engineering). Students and peers met in a variety of ways; for example, pairs met in the classroom, lab setting, at work, or through their cohort program. Interestingly, one student (Laura) met one of her peers at an interview for a practicum position. Of the 12 peers total that the six students discussed in interviews (each participant discussed their relationship with two of their peers), four students' (33%) gender identity matched a peer (Jimmy desired to keep his peers' gender identity confidential). Eight student pairs (67%) were in the same degree program and two student pairs were in the same program year. A third of peers (4 peers) enrolled in the program after participants, two pairs (16%) were in the same program year, and half of all peers were more advanced in their programs than participants. All of the participants except one (Sofia) had reciprocal mentoring relationships, that is, relationships in which the student participant both provided and received mentoring. Importantly there were benefits to mentoring as well as receiving support and guidance.

See Table 4 for details on matched characteristics between students and their peers. Not all information was available for the full set of participants and their identified peer mentors. For instance, information about socioeconomic status and religion appears on the table only if the participant brought these characteristics up in the interview. Peer gender designation is missing for one student, Jimmy, who asked to keep the gender identity of his peers confidential.

Table 4

Matched Characteristics for Student-Peer Mentor Pairs

Participant	Peers	Matched/Unmatched Characteristics	Context and Formality
Rose	Eduardo	-Same: program, enrollment -Different: year in program (advanced student), gender identity, race (but is SOC)	Student-initiated & informal
	Michael	-Same: program, enrollment, religious background -Different: year in program (junior), gender identity, race (white)	Student-initiated & institutional-sponsored; formal & informal
Jimmy	Kris	-Same: race, year in program, enrollment -Different: program (but closely related)	Student-initiated & informal
	Ellis	-Same: enrollment, race -Different- year in program (advanced), program (but closely related)	Student-initiated & informal
Miguel	Sara	-Same: program, year in program, enrollment -Different- race (but SOC), gender identity	Student initiated; formal & informal
	Mark	-Same: gender identity, program, enrollment -Different: race (white), year in program (junior)	Student initiated; formal & informal
	Chelsea	-Same: race, gender identity, lower-	Student initiated; formal & informal

Laura		income, program, enrollment -Different- year in program (junior)	
	Stephanie	-Same: race, gender identity, enrollment -Different: program, year in program (advanced)	Student initiated; formal & informal
Meghan	Kelly	-Same: race, gender identity, program, enrollment -Different: lower-income, year in program (advanced)	Student-initiated & informal
	Ben	-Same: lower-income, program, enrollment -Different: race (SOC), gender identity, year in program (advanced)	Student-initiated & informal
Sofia	Zachary	-Same: program -Different: gender identity, race (white), year in program (junior), enrollment	Institutional-sponsored & formal
	Michael	-Same: Enrollment -Different: race (white), gender identity, program (but closely related), year in program (advanced)	Student-initiated & informal

Note. Enrollment: full- or part-time; institutional-sponsored: peer mentoring took place within

programs/events organized by the department or university; student-initiated: students and their

peers decided to come together and support one another on their own; formal: (structured)

students meet to work toward a specific goal; informal: (unstructured) students deciding to meet to share experiences and/or advice. SOC= student of color.

Ten (83%) peer relationships were solely student-initiated and only one (8%) took place solely within an institutional-sponsored setting (classroom). One peer relationships took place within an institutional-sponsored setting and was also formal in nature (they had a clear goal). For example, a participant (Rose) indicated that she and her peer worked together on a department-sponsored student science group with a clear goal of accomplishing their group project tasks. Rose also indicated that the relationship was at times student-initiated, where they also came together on their own, and that it was also informal in nature (e.g., they provided advice to one another as needed with no specific goal or outcome). In some cases, including that of Rose, peer relationships (five, 42%) were both informal and formal in nature. For example, at certain periods students would check in and socialize with one another (informal), while at other times they would meet to work on their dissertation (formal). Half of all peer relationships were informal and only one (8%) was solely formal (Sofia); Sofia's relationship with one of her peers occurred within an institutional-sponsored setting (classroom group work) and was referred to as "superficial".

Five (42%) student pairs shared the same race; three peers were students of color but did not share the same race as their respective mentees, and four peers were white. Eleven student pairs (92%) shared the same enrollment status (full-time vs. part-time), while two pairs did not. Certain participants did not mention similar socio-economic and first-generation backgrounds with their peers. Further, the mentoring between eleven student pairs (92%) was reciprocal,

wherein the participant and their peer provided mutual support to one another. It is also important to note that there were two participants who were formally matched with peer mentors through their respective departments; however, both of these participants chose to discuss different peers (these relationships were student-initiated). Additionally, there were two participants who mentioned that they had a group of supportive peers. For example, Miguel and both of his peers (whom he discussed in the interview) were part of a writing group together. However, Miguel also received different types of support from each of these peers separately. In another case, Meghan was part of a group chat with one of her peers and another student in her program. The students used the chat to process things and check in with each other, however Meghan also had a relationship with her peer outside of this group chat. In the following section I will discuss the different types of support that students received as part of each student's counter-story.

Part A. Findings - Holistic Stories and Themes

As I mentioned in the earlier chapter, I implemented a two-part analysis of the data collected throughout this study, drawing from both holistic-content and constant comparative analysis to answer the research questions. Holistic-content analysis was used in order to preserve the essence of participants' stories and to capture their personal lived experiences through their own meaning (Charmaz, 2011). As noted earlier, this strategy is aligned with the application of a critical race methodology. I followed the holistic-content analysis process outlined by Lieblich et al. (1998) with the goal of keeping each participant's story intact to inductively locate themes and construct the overall summary, or counter-story, of each participant.

I read each participant's entire transcript (hard copy) several times with an open mind until a pattern emerged that was "usually in the form of foci of the entire story" (Lieblich et al.,

1998, p. 62). As I mentioned in chapter three, "a special focus is frequently distinguished by the space devoted to the theme in the text, its repetitive nature, and the number of details the teller provides" (Lieblich et al., 1998, p. 63). After this step I noted my initial impressions of the whole transcript and made note of any exceptions to my general impressions as well as any features of the transcript that seemed contradictory or contained unfinished descriptions. Following this, I made note of themes or special foci that were present throughout the whole transcript. I chose to reference certain chunks of the transcripts in participants' final counter-stories based on the extent that they answered the research questions as well as instances where peer support was aligned with the community cultural wealth framework (see Table 2). There were also important aspects about students' experiences with receiving support from their peers that were important to discuss. This included the overall impact that peers had on participants as well as certain aspects that participants repeated multiple times during the interview, following Lieblich's (1998) strategy. As a final step, I used the themes and special foci to construct a detailed summary or "story" for each participant that contained:

- Their overall experience in doctoral education
- How they answered the research questions
- Important aspects about their experiences receiving peer support

As I mentioned earlier, I asked each participant to indicate whether their written story was correct and accurately reflected their experiences. All participants responded to my request and clarified certain questions I had (including the ways that I de-identified their accounts), provided edits to their counter-stories, and contributed additional text to certain portions of the counter-story that were not clear. Each student's counter-story and associated themes are below.

Miguel

Miguel is an advanced Ph.D. student in the field of education at Public U. In addition to

identifying as a gay, Latino, cisgender male, Miguel identifies as an immigrant. Similar to other

students in his cohort, Miguel simultaneously studies and works full-time as an administrator.

Miguel makes it a point to emphasize how the structure of his doctoral program has been

critical for his success. First, it allows students to move through the program together as a

cohesive unit where students experience a collective system of support. Miguel and his cohort

peers not only take several courses together but also strategize to ensure that everyone is keeping

up with schoolwork. For example, they divide the readings among one another to make the

workload more efficient and manageable for everyone. Early in the mornings, before class even

starts, students come together to discuss upcoming assignments to ensure that they are prepared

for class, and on the weekends students write together. Miguel notes, "we identify as a cohort

and then within the cohort, we are definitely individuals, but that cohort was so critical and

important."

Second, each member of the cohort is assigned to a student mentor belonging to the

previous cohort who provides support with various aspects of the program. During a particularly

intensive period at the beginning of Miguel's program, students from the previous cohort met

with Miguel and his peers regularly for breakfast and left encouraging notes. "That made the

experience very welcoming. Even though we were all a little nervous, it started lowering the

anxiety to some extent. That opportunity to eat together . . . it started naturally creating a lot of

positive dynamics within the cohort."

Third, students in the program are assigned to an advisor but have the opportunity to

interact with each of the faculty members in the program and are able to pick a new advisor

without any adverse or uncomfortable repercussions. Miguel notes, "It is perfectly fine, and they make it very, very clear that you can switch and you can change." Miguel had a different advisor when he first started the program but after being able to easily switch, he discovered a strong connection with a different faculty member who also shared his research interests. As a result of being part of a program that integrates such helpful elements, Miguel hasn't felt the need to seek out other institutional resources at Public U.

Miguel highlights that he feels more welcomed at Public U. than in many other institutions he has both worked and studied within; he also stresses that it is undoubtedly the most diverse:

> You know, looking at the images on the wall, I remember seeing a black student holding a stethoscope on a hospital floor. When I remember other institutions [I was a part of], if there was a student of color that was in a poster it was usually [of them] dancing or playing an instrument, never doing anything scientific. So it was just very different, the messages that I was receiving from the environment [were] very different from other institutions that I've been at.

Sara (a student in the same cohort who identifies as Black) made an impact on Miguel's doctoral experience in myriad ways. The two would often provide detailed feedback on each other's work and continuously come together to flesh out ideas. "My [dissertation] relates to her experience and her topic relates to [mine]. . . She understands what I'm trying to say, because we talk regularly. So it's an easier connection for us to be able to help each other." The mutual academic support they provided one another later evolved into discussions that were more career-focused in nature, such as processing things that happened at work or conversing on how to advocate for a higher salary.

Additionally, Sara helped Miguel figure out administrative aspects of being a student, like figuring out the financial aid process and correct paperwork to complete. Finally, Sara provided much-needed emotional support to Miguel, "she was very helpful in talking me off the ledge from time to time when things were stressful or when you just say, I can't do this anymore, I'm tired. I'm exhausted. I have my job, I have problems there."

Another peer, Mark, (who belongs to a different cohort behind Miguel's) is also a part-time student in Miguel's program. Mark also works at the same institution (not Public U.) as Miguel and was incredibly helpful in providing writing-related support, which Miguel noted was especially important given that he didn't grow up in the United States. "[Mark] is truly selfless when it comes to reading. I think he enjoys reading papers and dissertations. So he's been gentle but critical of the writing in a very tactful way. So he's been tremendously helpful." For example, Miguel hints that Mark gives constructive guidance without making the former feel bad. Mark also drew on his own expertise as an administrator to guide Miguel on how to be successful as a doctoral student, especially with respect to structuring his time (post-coursework) to ensure that he was progressing with his dissertation. "He told me, continue to schedule half a day off every Friday, and you sit your butt on a chair and that's when you're doing your work. And you have to schedule it and you have to stick with it."

Mark, Sara, and Miguel also meet virtually every week for a dual-purpose writing group session (that was initiated by Mark and structured by the three students) where they hold each other accountable for their academic work and also process aspects of doctoral life in a safe place. Miguel notes:

So we used to use the first 15 minutes when a person joins the group to kind of unload what you've been carrying all week. So it's almost like a mini counseling session, if you will, where we just, you know, it's mostly doctoral program-related frustrations.

For example, the students talk through workloads, administrative processes, and dissertation-writing; they then offer up suggestions on how to approach different issues. Miguel continues to highlight how important this emotional and social support is:

 [Mark] is probably one of the more influential persons and someone that I know I can pick up the phone and call him right now and he will pick up and walk me through or help me think about a way to say something or help me with a problem.

The type of support that Miguel receives from his peers and his faculty members are pretty distinct and specific, but equally important: my peers are very much a personal support, the ones that are being my cheerleaders, right in the corner, and the faculty member is the one that's helping me navigate the academic piece of things and the dissertation.

Themes

Two notable themes were present in Miguel's transcript. First, the positive outcomes of his peer relationships were largely driven by shared experiences between Miguel and his two peers. For example, when Miguel was trying to process material in his critical race theory course and was reflecting on his own identity, Sara operated as a sounding board and talked through her own experiences as a person of color on campus. Second, Miguel had very close relationships with his peers and could be completely transparent with them and freely ask them questions he had. Miguel noted that he could be completely vulnerable with his two peers and did not hesitate to discuss even the hardest things (e.g., imposter syndrome). For example, Miguel could discuss when he was not understanding something in class or something pertaining to his research.

Further, he could express any feelings related to struggles he faced in the program as well as

questions he had surrounding if he was smart enough to be there.

Rose

Rose is an advanced Ph.D. student who identifies racially as biracial mixed Black and

White. She is in the life sciences at Private U., a predominantly-white, research-intensive

university located in a wealthy suburb in the northeastern part of the United States.

Early on in her program, Rose was bullied by three international students within the lab

where she spent most of her time (a lab that no other student of color had ever worked in). From

the start, she had trouble integrating into the culture of the lab, "they treated me like an outsider

and that was something I was never able to overcome." The culture of the lab was not conducive

to getting work done. Other students tampered with Rose's experiments, screamed and stomped

while students were working, physically intimidated Rose, and at times even rendered it difficult

for her to use equipment that was critical to the progress of Rose's dissertation research. This

behavior was tolerated or encouraged by the principal investigator. Rose ultimately became a

scapegoat for the students who were causing trouble and she was asked by the principal

investigator to leave the lab altogether, which she did (and later started work within a new lab).

There wasn't much of a community in the lab and as a result, there was no one Rose

could talk to about the challenges she faced. If Rose brought up a concern to a superior, it was

dismissed, however if another student helped her get the message across it would be recognized

as important and a change would be implemented.

Rose sought help from university counseling, and following this, was required to speak to

someone from the university's human resources office who attempted to mediate the situation.

Rose notes, "I was asked to leave the lab because I didn't know my place, I couldn't fit in with

the culture. . . I was called hysterical. I was already marginalized and iced out of the group in the first place." Rose spoke to the school's dean about her concerns and the decision to remove her from the lab, however, the latter was unsupportive of the situation and took no action.

Rose reflected on what it is like for her to operate in other spaces on campus given her personal identities. **"**I have to work much harder to establish myself as someone who's knowledgeable or someone who deserves respect, than I think some of my peers do, and I do think that's because I'm both black and a woman." Rose notes that the undergraduates she supports in her role as a teaching assistant do not take her seriously, question her authority, and distrust her academic expertise. It often takes several months for students to recognize that what Rose is saying is true and to trust her knowledge. In describing what it was like in the lab, Rose notes, "They never used the word 'uppity', but that was basically what it came across as, that I didn't know my place and I was acting too smart and I wasn't giving them the appropriate deference."

The department as a whole felt more welcoming and genial earlier on in Rose's program but later began to feel closed off, especially with respect to obtaining what she needed. It is difficult for Rose to ask individuals within the department for different resources that are important to her progress in the program. There's a very rigid hierarchy at the school that has prevented her from accessing opportunities or support - or figuring out that different types of opportunities and support mechanisms even exist. Rose often has to go through multiple people when she needs something or requires support and often the final answer will be "no". "Getting what you need or the type of support you need largely depends on who you are." Rose believes she has an easier time than other students in getting what she needs because she did well academically during her first year of classes, and in turn, garnered a positive reputation. Rose

highlights that she must find or create her own forms of support due to the fact that things are not easily accessible or are nonexistent within her department. If Rose or her peers require support or resources, they take matters into their own hands. For example, Rose attempted to join affinity groups or to start one herself in order to build community on campus. Additionally, Rose and other graduate students within the department organized to pressure the department to issue a statement about national events involving the Black community and international students and to ask for more support and transparency from the departmental faculty and administration. Rose notes that several things came out of this effort, including a new diversity committee and a document of policies and procedures for graduate students.

Rose actively tried to cultivate mentoring relationships with older students. In addition to providing Rose with academic-related support and general friendship, one of her peers, Eduardo (a first generation Latino student who was more senior in the program) was instrumental in supporting Rose through her challenges in the lab. Rose leaned on Eduardo when things became increasingly difficult and asked him how she should navigate the shifting social landscape in her lab. Eduardo was concerned to the point that he told his own principal investigator (the chair of the department) what was transpiring in Rose's lab. "It was nice to feel like someone in the program was worried about me when I was worried about just kind of getting lost in the shuffle or like I wasn't important enough to care about." Rose also received advice on how to communicate with her own principal investigator and the specific kinds of support she should ask for. For example, Rose and Eduardo talked about how to encourage her PI to publish her research and how to apply for different fellowships. Because Eduardo was also a person of color, Rose felt like she could be herself in his presence, "It felt like a safe kind of relationship where I could express things about race or things about the culture here that I couldn't express with my

other peers in a way that they would understand." Additionally, Rose views Eduardo as a great model and someone who is both gritty and persevering within different types of institutions. "I think I'm still a graduate student because of him. . . I don't know if I could have successfully navigated my time here without someone like him. And so I think I probably would have left."

A second peer, Michael, who worked in the new lab Rose joined was also incredibly supportive. They share a religious background and Rose highlights that "it was only with this peer that I sort of was able to explore what that (my religion) means a little more which has been kind of interesting for me." Since Michael is a few years behind Rose in the program, the latter would provide advice on things like how to pass the comprehensive exams or do well in coursework. The two also consulted with one another on their projects within the lab and talked quite a bit about navigating relationships with different faculty members and the departmental administration. Both Rose and Michael were also connected through their leadership roles within a national science organization as well their work on writing a paper together. Michael was also someone that Rose could go to for a multitude of matters, from asking for help with editing her academic papers to gaining a sense of reciprocal emotional support:

> So I feel like there's a lot of solidarity and checking in. And a lot of support he's provided has been emotional, like we can do this, keep going, type of support as well as just figuring out how to fix problems that arise.

For example, Rose sometimes experienced challenges with getting supplies in her lab. Michael was able to guide Rose on how to approach the PI and ask for what she needed. Rose's peer relationships also played an important role in helping her figure out how to access different institutional resources on campus:

There's a lot of resources available, but the process for accessing those things is almost entirely opaque, and so being able to talk to people who do know, this is how you get this kind of counseling. This is where you file this sort of form, you can get this sort of extension, that sort of thing. That's all been very, very useful to me.

Rose has heavily leaned on peer support when formal institutional supports were lacking. Interactions with Eduardo and Michael have also increased Rose's awareness of different sets of "privileged resources" on campus and beyond. Rose mentioned that her relationships with her peers have helped her to be privy to and access formal institutional resources at a greater rate. It's important to note that Rose has leaned heavily on support from her peers when institutional support was lacking:

So I've certainly had different sorts of formal support, but a lot of that has been limited in some way. That meant that either in duration or type of support or you know, how I have to qualify for the support. And so the peer relationships have really helped me fill in the gaps between what the formal support has been able to provide and what I actually needed at the time. And that's even after the peer support was why I had the formal support in the first place.

Themes

The data makes clear Rose's challenges related to accessing or even being aware of key "privileged knowledge." Rose does not know what resources and support mechanisms exist for her to tap into. Of the resources that she is aware of, it is incredibly difficult for Rose to access those that are important to her educational advancement. This is due to the ways that her program is structured and the fact that things are not made clear to students. Further, Rose highlights that her departmental environment is highly political and is difficult for her to get

what she needs, given her identities. As a result, Rose must be proactive and locate or even create her own forms of support. Importantly, both of her peers fill in these gaps by making sure that Rose is aware of different resources that exist.

Rose's identity also plays a significant role in how she experiences her program. This is manifested in a number of ways. For example, Rose highlights that her identity as a Black queer woman contributed to her very hostile work environment. Her students also questioned her intellect and authority when she taught undergraduates. Further, Rose notes how she was isolated and iced out of her lab and was blamed for the behavior of her peers. Because of what she experiences as a Black queer woman, Rose feels she must be proactive in building up a network and asking for support; further, her peers were instrumental in supporting her through all of these challenges and they operated as safe relationships where she could express things about the culture of the department/institution in a way that they would understand.

Laura

Laura is an advanced doctoral student in the social sciences. She identifies as a Latina, documented, first-generation, immigrant, bisexual female. Laura also notes that she comes from a low socioeconomic background. At the time of the interview, Laura had recently defended her dissertation.

Laura emphasizes that glaring gaps exist between what her department advocates for in terms of being driven by social justice and what they actually deliver on (however, she noted that this was improving as time went on). The department stresses an investment in cultural sensitivity and centering a social justice mission and leaders emphasize increasing student diversity. However, Laura highlights that the department has no idea how to support students like her. "I think the recruitment space exists and yet there aren't enough resources to help students

like me through the program in practicality". Attending conferences is seen as important for professional development and research proficiency but there is a dearth of financial resources available for students from low-income backgrounds like her to make trips across the country. Further, when the department's diversity committee planned an exercise related to unpacking socioeconomic status, it was clear to Laura that students and faculty in attendance were uncomfortable when a student revealed that they struggled financially. "That's very problematic. I would have expected [the professors leading it] to jump in at that point and acknowledge what that student meant, but it seemed to take everyone by surprise for some reason." Laura felt that the professors did not handle the situation well when the student confided in the group and made themselves vulnerable.

Chelsea, a fellow peer (in the same program as Laura) would meet at Laura's home regularly to work together on academic and research-related projects (during other semesters they would meet less frequently). Before jumping into work, they always took an hour to catch up and to provide emotional support to one another. Chelsea was instrumental in supporting Laura through the final stretch of the program, and the two provided each other with much-needed emotional support by discussing their experiences in the institution and encouraging each other to complete the program.

Due to the fact that Chelsea was a few years behind Laura, she experienced many of the same challenges related to the structure of their program as did her peer. "So it was kind of like, I was getting a validation after the fact. . . but in a way that works for both of us, because I never got to process it." Both students were able to openly talk about their struggles with the program environment, reactions of leadership to key national movements such as Black Lives Matter, and difficulties with their respective mentor relationships. They also discussed what it meant to be a

Latinx, female-identifying student operating within a program with underlying biases and expectations. Chelsea also encouraged Laura to take care of her health and to make sure that she exercised in order to help bring down her anxiety levels associated with her challenges in the program. Additionally, Chelsea was instrumental in reading through emails that Laura had received from faculty members in order to help the latter interpret and reply to them. This was especially important given that Laura was already feeling threatened or dismissed by certain faculty in her program.

A second peer, Stephanie (an advanced student) was also a critical part of Laura's overall support structure. Similar to Laura's relationship with Chelsea, the two would work together and meet socially. Stephanie also helped Laura navigate moments of crises; this included when Laura was very overwhelmed with school or was processing difficult things that had occurred related to the departmental/institutional climate:

> So I would always text her and tell her what was going on. And she would always hear me out and normalize it. And say, you know, that sucks. You shouldn't be going through that. It's not fair. I've been here already and things like this happen and I'm sorry. And again, sometimes giving me ideas about what to do or what not to do, because you have to be careful navigating a PhD program (because) there's a lot of politics involved in any institution.

Importantly, Stephanie helped Laura make decisions such as escalating an issue versus not escalating, replying to an email versus not replying, consulting someone outside of the department or institution, and helping her assess which actions were safe (would not result in any adverse reactions from faculty or other authority figures). Interestingly, although Miguel and Laura are both students at Public U. (in different departments), their experiences with the

departmental/institutional culture are drastically different. Stephanie was also very helpful during the grueling process of applying and interviewing for a clinical placement (something Laura had to do each year):

> So she shared her personal statements. She shared her CV. She helped me prepare for interview questions, helped me emotionally ground myself. Like you're going to be okay, you're going to match having that reassurance of like, oh my God, you've been in grad school for like [so many years] accumulating clinical experience.

> The support that Laura receives from her peers cannot be overstated especially given the fact that she struggles as a person with marginalized identities:

> It's crucial to remind you that you're not making things up. So it's kinda like a gaslighting effect because when people tell us, oh, even if they don't tell us directly, right. But the way they behave or the way they interact with us is sending the message of like, your experience . . . it's not real or your experience is something that we shouldn't have to really sit with and try to understand, because it doesn't matter when you have someone else in that same position telling you like, yeah, I'm experiencing the same thing and I'm experiencing the same response. And I also don't think it's fair.

Importantly, Laura emphasizes that the support she received from her peers has filled in the gaps of all the institutional supports that were not there. "It's kind of like, they have both shined lights, and tools, resources that are there and not there, which saves me time by not trying to look for resources inside when they're not there. And someone already knows they're not there."

Themes

The role of racial identity underpinned much of Laura's experiences as a doctoral student. Laura notes that it plays a huge part in the ways that she navigates obtaining the support she needs within her program. For example, she notes that within her Latinx culture, the professor is viewed as the authority figure whereas many white students or students from other cultures may feel more comfortable discussing their expectations and needs and are able to be more assertive. Laura had no idea that this was what was expected from doctoral students. The fact that Laura shared her racial identity with her peers was also critical as these individuals helped her by normalizing the challenges she faced in the program; likewise, they understood and validated her struggles. The kind of emotional support Laura receives from her peers is given in a very warm way, which Laura notes is characteristic of Latinx culture. Laura can send Chelsea and Stephanie a text with a paragraph of something she needs guidance on and they will read it and help their friend ground herself in a very calming way.

Meghan

Meghan is a Black, heterosexual, cisgender, woman; she also identifies as first-generation and notes that she comes from a lower-income background. She is an advanced Ph.D. student in the social sciences at Private U.

In reference to what it is like to obtain support in her department, Meghan notes that it is not as easy as she had hoped or anticipated. However, after Meghan proactively asked for different types of support from her advisor, the latter provided a lot more guidance. She notes:

> I'm not that familiar with academia. . . But I need extra help. . . I'm not sure how much
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> research I need, how many publications I need. It's not like other students who seem to
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> just kind of know, I didn't. . . this is knowledge that is not common to people who don't
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> have either family or friends or something in this space. I mean, I'm coming from a lower

income background, first-generation, it can be intimidating to ask people for help. And then, you have imposter syndrome, you don't want people to think that you're stupid or that you don't belong there.

Meghan's cohort is generally pretty supportive and her faculty (and advisor) are welcoming. Although her program is focused on different aspects of social justice, there are times when individuals make insensitive comments about socioeconomic background or reveal other microaggressive behavior. The lab that Meghan works within feels very competitive, especially with respect to being part of publications. It is important to highlight that Meghan had to make an effort to seek out supportive individuals within her institution (e.g., a supportive Black professor or students in this professor's lab) who she was in turn able to turn to for support. Meghan had to intentionally network with these individuals and make an effort to be part of their circle.

Interestingly, Meghan met one of her most important peers when she was considering applying to Private U.; she was connected to Kelly- who was in the same program as Meghan- and the two spent hours on the phone discussing the program. The two later reconnected and their relationship turned into a friendship. Kelly would text Meghan to see how she was doing and the two would meet for dinner sometimes after class. Meghan reached out any time she had questions about an important milestone that was coming up (e.g., comprehensive exams, qualifying paper) to ask for help on what to expect. Kelly also provided useful advice such as the value of linking course assignments to the dissertation, planning for courses, and surviving as a doctoral student. The last point included how to take care of herself, how to assert herself in a competitive environment, and how to deal with biases on campus.

Meghan noted that it was critical to just have someone with whom she could joke around and share identities and similar experiences with. Importantly, Kelly provided emotional support to Meghan and helped her broach difficult conversations with her advisor. Additionally, during a very stressful time in which Meghan had to apply for an internship, Kelly played a critical role by reading Meghan's essays, reviewing her CV, and connecting her with a current intern at one of the sites Meghan was applying to. Kelly also took the time to instill a greater sense of confidence in her peer. Meghan notes that Kelly would say things like, "You're here because you deserve to be here. You're smart. You're funny. You're kind." Meghan notes, "and I think when you're going through a competitive program, you can start to doubt yourself. And I think just the confidence boost that I got from being around her was extremely helpful."

Another peer, Ben, studied within the same program and was one year ahead of Meghan. Meghan highlights:

You're sitting in class and you're talking about social justice. And sometimes it feels more theoretical, you know what I'm saying? It feels like people are here to learn this in theory, but they haven't really experienced it. But I think with him, I knew that he could understand some of my experiences, but not coming from a super privileged background.

Additionally, Ben helped Meghan with the process of applying for very competitive practicums (similar to the way that Kelly helped Meghan). Also similar to Kelly, Ben encouraged Meghan to not be afraid to ask faculty for support and mentorship around her different needs. Meghan notes:

So I think that that's part of the reason why I was hesitant to ask for help because. . . I think I was concerned. . . are these people going to think why does this person not know this?. . . just all of these things kind of were going through my head when I was deciding

should I reach out and ask for help?. . . what will they think of me? And I think having

these peer mentors that were kind of like, if they think this way, it's their problem. It's not

your problem, it has nothing to do with you, you know?

Importantly, Kelly and Ben helped to normalize the notion that it is okay to not know

everything and to ask questions. As a result of her peer relationships, Meghan asserts, "I don't

second guess myself as much. I know that I deserve to be where I am . . . I ask for what I need."

Interestingly, Meghan had a peer who was assigned to her, however this peer was not as

influential as Ben or Kelly. One possible explanation for this could have been a lack of shared

characteristics or perhaps this peer did not understand Meghan's experiences. Meghan also

stresses the role of peer support versus obtaining formal institutional supports:

I feel like there is a level of usefulness and helpfulness that comes from getting advice

from peers. . . it's one thing to ask your advisor, what's it like taking a comprehensive

exam and another thing, asking your peer who actually had to take the comprehensive

exam, what's it like to take the comprehensive exam?

At the same time Meghan notes that it would be nice if her department took more of an

active role in areas like career development.

Themes

A few key themes emerged from Meghan's transcript. Meghan had a sense of closeness

and connection with her peers that was invaluable to her. As students of color, Ben and Kelly

were individuals who Meghan did not need to explain things to; they understood her struggles

within the program and understood what she was going through and what she was talking about.

Meghan's peers took the time to hear her out when she faced tough situations and responded by

letting her know that it was okay to feel angry, sad, upset, or any other emotion. The two peers

were also instrumental in pushing Meghan to advocate for herself in the program. They taught her to ask faculty members (including her advisor) different types of questions and to be more explicit with what she needed to be successful in her program; this included asking for things that she needed more support with such as figuring out how to publish and how to be successful in her program.

Sofia

Sofia is a Ph.D. student in the field of education at Private U. Sofia is in her third year in the program and identifies as Latina. She also identities as a heterosexual female. In addition to studying part-time, Sofia works within Private U. as a full-time administrator.

Sofia is keenly aware of what it means to be a Latina doctoral student at a predominantly-white campus. Reflecting on her careful approach to interactions, she highlights, "The fact that, you know, I'm representing people because that's my other identity [as a Latina] woman. I am representing people of my heritage. . . I'm very careful about not making mistakes or about not saying things that would reflect badly on me." Sofia works to ensure that she comes off as intelligent and professional in the program. Sofia also makes a clear connection between seeking out support and her ethnic identity:

> I am unlike other students, but maybe I'm not as sort of in your face about getting the
> information from other people. . . we don't want to bother anybody. I want to be very
> polite and very considerate, you know, especially of people you don't know and that you
> don't have that close [of a] relationship with or people who are considered to be, you
> know, in authority. We don't ever want to be a bother.

In addition, Sofia highlights that her age and administrative position inform the ways she moves through her program: I think that people tend to first see that I am an administrator at the university [rather] than a doctoral student." Sofia further notes:

I have to tell you the one thing that always kind of bugs me is that because I work full time and I have a very demanding job, I always feel like I'm missing out on an experience that maybe somebody who is a full-time student would have, for example, the experience of doing research with your advisor or with another faculty professor and being part of that team.

With respect to being older than the other students in her program, Sofia believes that individuals may be treating her differently due to her age, employment status, enrollment status, ethnicity, and gender background, "I'm all these things that they're not, you know. . ." Importantly, Sophia highlights that she is not sure which part of her identity is linked to specific experiences in the program.

Sofia rarely had opportunities to connect with other peers in her program to begin with, and COVID-19 has only made this worse as she has been taking classes remotely: "I can't tell you that I have been in many places other than the classroom with other doctoral students. . . I'll be frank. I don't even know if there are opportunities for doctoral students to be together outside of the classroom." Sofia is the only student in the sample who expresses this sentiment. Unsurprisingly, Sofia cannot name any of the peers in her program whom she is in constant contact with. Further, it's difficult to not be able to attend class in person and to not have the space for potential relationships to take hold, "I don't have those deep, pure connections. I don't know what difficulties people are under, are experiencing as they go through this journey. . . within the (remote) classroom environment." Sofia notes "I have to say it, it feels competitive to

me. It feels like everybody is trying to, I hate to say this, but it feels like everybody's trying to prove that they are smart, that they're worthy of being there. . .”

One of Sofia's most critical relationships is the one she has with her advisor (who also identifies as Latinx):

 It is no accident that [they are] a [person] of color, and that makes it easier to connect, you know, many times we slip into speaking Spanish and there's that connection, even if it's just the language. . . and so it's a good way to be able to connect with somebody who has something in common with you and who wants to see you succeed as a fellow Latinx person, because I know that that is really important to [them].

Interestingly, the relationships with peers that Sofia views as most helpful are, for the most part, formal and superficial as they occur within the classroom structure. Zachary, an advanced peer in the same academic program as Sofia, had taken two methodology-related classes with Sofia. In the first course, the two edited each other's papers for a class assignment and in the second course they were paired together for a course research project where they reviewed each other's papers and provided feedback. “I'm always grateful for feedback, but again, [it was] not like it was gratuitous or like, I want to help you out. I want to support you. . . because we both had to do it.” Sofia notes how it was very formal, “That was pretty impersonal, because I think it was a matter of, I send you an email with my paper. Then you send me back the paper with review comments. . .”

A second peer, Michael, not only also worked in the same institution as Sofia, but reported to her in the same office. Michael (an advanced peer) studied within a different department in a closely-related program and provided Sofa with different tidbits of helpful information that Sofia viewed as difficult to access within Private U. This was especially

impactful due to the fact that Private U. is a place that is difficult for students to navigate and to obtain the information they need. Sofia affirms, "Private U. is a place for swimmers, it is a place for people who are resourceful and who will have to get the information. . . there are a lot of things that are not obvious." This includes formal processes like how to register for classes as well as which classes to take. In one case, Michael and Sofia were chatting about what courses they were planning to take. Without Sofia asking, Michael told her which professors she should take specific courses with. "So it's completely unsolicited, but amazing, because I would not have this information otherwise. . . and because the information was given to me freely, and it turned out to be really impactful because I then took that class with a phenomenal teacher that he recommended."

When asked if there was anything that she learned from her peers about the kinds of help available at Private U., Sofia answers with a single word: "nothing"; she affirms that this is due to the fact that her peer relationships have been so superficial. However, Sofia does note that she sees formal institutional support mechanisms and peer support as distinct and "probably complementary." For example she notes, " I would not go to my advisor with a quick, simple question, like, how do you register [for classes]?"

Themes

An important theme that is woven throughout the transcript is the way that Sofia's identities as an older Latina working full-time as an administrator inform how she experiences her program (although she cannot pinpoint exactly which part of her identity is linked to certain experiences). Sofia aptly notes, "I'm all these things that [my peers] are not." Sofia feels as though she is missing out on the true doctoral student experience due to the fact that she is not enrolled full time. Importantly, she has not been able to spend time with fellow doctoral students

outside of the classroom context and the rise of COVID-19 has made what little contact she had with peers nonexistent. Sofia highlights that she does not have "pure and deep connections" and has no idea what her peers are going through in their own respective doctoral journeys; as a result she has no way of knowing whether other students experience the same things she does. Importantly, she highlights that the closeness of her peer relationships determines the types of questions she will ask; for example, Sofia may not be comfortable asking certain questions to peers whom she is not close with for fear that they may perceive her as unintelligent. This is especially true given the competitive environment of Private U. Notably, the only person she shares a connection with is her advisor. This relationship is critical for Sofia especially since they occupy common ground due to sharing a racial identity and language.

Jimmy

Jimmy is an advanced Ph.D. student in an engineering field at Flagship U. He identifies as a Black, Caribbean heterosexual, cisgender male. Jimmy is also a first-generation college student and sees himself as "pseudo-international," given that he was not born in the United States but has been in the country long enough for people to think that he was.

Jimmy notes that the resources available at his institution are designed more for undergraduates:

Unless you have somebody. . . who is familiar with this specific software or who knows . . . how to use this type of program for your specific case and who has the necessary domain knowledge, [that] becomes a little less supportive and you're kind of left to your own devices and you kind of have to figure it out.

The department is pretty transparent about new initiatives and leaders are collaborative and open to feedback from students. For the most part, Jimmy is the only student working within

his lab, although sometimes there are a few undergraduates around. On the plus side, Jimmy is able to get more time with his advisor to work through things; however, at times he has to figure out things on his own or find someone who has expertise in a specific area (which is typically not a problem). Jimmy notes that his advisor is extremely supportive of him and also takes the time to answer each and every one of his questions.

Kris (a peer in a closely related department) was instrumental to Jimmy in myriad ways. This peer was very open to sharing all of their resources for a fellowship application, and further, went back and forth with Jimmy to provide feedback on his fellowship proposal. During race-related incidents that occurred very close to their campus, Jimmy received emotional support from Kris as he vented to his peer and processed everything that was transpiring. Kris was also incredibly helpful with guiding Jimmy on how to approach different aspects of his degree program; this included prioritizing research and figuring out how to manage certain classes that were giving him an issue.

Importantly, Jimmy highlighted that the climate within the institution was not always a healthy one; at times students faced microaggressive behavior and during one event (targeted towards diversity) a student was tokenized by departmental leaders. To provide much-needed support for a particular marginalized group, Kris and Jimmy started a graduate chapter (of a larger national group) at their institution to support engineering graduate students. Jimmy highlighted, "This [peer] was instrumental in founding the organization by helping us write the documentation and figure out the storyline. . ."

Kris was also well-integrated into the university and had significant pull with high profile individuals; they would invite Jimmy and other students to participate in important meetings with departmental/institutional leaders to ensure that their perspectives were heard. Jimmy notes:

So a lot of unwritten things that I kind of learned from this relationship is that, if you don't ask for it, you're not going to get it. And seeing the amount of influence that this person had just as a grad student, it was kind of mind boggling. I was inquiring about how they were able to get X, Y, and Z done, and they were transparent in sharing their experience. They showed me to flip the question from why, to why not.

A second peer, Ellis, encouraged Jimmy to advocate for himself, "getting competence to ask for things. . . that I need. . . realizing that people have their busy schedules and things. . . but if there is an expectation of me to do certain things, I need support in this, in this specific way." In addition, the two students often checked in with each other to ask how everything was going; they also periodically grabbed coffee to take their minds off of their respective programs. Along with other students, Jimmy and Ellis met to share home-cooked meals for potluck events every single week and watched a favorite show; importantly students would also vent about their frustrations. Jimmy highlighted the fact that he and Ellis had real conversations:

We really delve into it. . . you know, in the Ph.D. there's days when you're really, really up and there are days when you're really, really down. And so there are, at least for me there, there were days when I again said, this is enough, I'm done. . . I'll master out or I'm going to leave. And then we have a real conversation about, do I really want to leave?

Jimmy was able to process if he really wanted to leave his program and what leaving would actually look like. Jimmy notes that the support he receives from peers fills in the gaps in

institutional support. He highlights that there are institutional support systems available, however, he saves deeper conversations for his trusted peers.

Themes

The ways in which Jimmy's peers were open and transparent with him is a key underpinning of his influential peer relationships. Both Kris and Ellis demystified and unpacked different aspects of being a doctoral student: they spent time guiding Jimmy on aspects such as what to spend his time on, how to navigate the doctoral program, and how to be successful. The two students openly shared proposal applications and privileged knowledge. This openness was reciprocated by Jimmy when he was comfortable enough to reveal his vulnerabilities and broach the extremely sensitive conversation with his peer of potentially leaving the program altogether.

As described in each of the counter-stories above, students described the ways in which they went about finding and receiving support. These collective stories answer the research question: how do Latinx and Black doctoral students seek and receive support from peers within their doctoral institution?

Students' peer mentors were those who shared certain characteristics and/or settings with them. For example, pairs studied in the same cohort, the same department or a closely related department, worked together, or met through shared projects or classes. Importantly, students were largely proactive in creating and investing in their own networks of support. Further, students derived a range of support from their peers. This included academic or scholarly support in the form of significant feedback on papers and research endeavors. Mentoring also took the forms of friendship and social emotional support when participants were facing significant challenges within their respective programs, practical guidance such as how to structure their

time and learning the ropes of being a doctoral student, and strategies like learning how to advocate for their needs.

As noted in chapter three, holistic content analysis was used to preserve the essence of participants' stories (Charmaz, 2011); this approach also aligned with the application of a critical race methodology that centers the voices and experiential knowledge of those who are located at the margins of society. As indicated through the counter-stories, each student's specific situation in doctoral education was unique. It is important to note that students' experiences with peer mentoring varied. For example, Rose, Laura, and Meghan noted how their peers were close friends who were instrumental in helping them navigate through a challenging environment while validating their experiences. Miguel found his institutional/departmental environment to be less challenging, but similar to Laura, Rose, Meghan, and Jimmy, his peers were the reason why he did not end up leaving his program. Sofia's peer relationships were more superficial and largely had no significant impact on her life as a doctoral student. However, there were commonalities in the ways that students received peer mentoring across the sample. The similarities and differences across cases were revealed by a cross-case analysis that functioned to break the stories down into themes.

Part B. Findings - Cross-case Themes

The following section will discuss the major themes across student cases that map onto top level codes. These codes include challenges with the climate of the department/institution, social/emotional-related support, racial identity, students' other identities, support with challenges, and academic-related support. It is important to note that students discussed the ways in which they received support within the context of operating within their departmental/institutional environment. I will first discuss the different types of challenges that

students faced related to the overall environment of their respective programs; importantly, students experienced these struggles on a continuum. I will then detail how students across the sample highlighted how difficult it was to access different types of information and much-needed support that was important for their progress and success as doctoral students. Following this, I will delineate the ways in which students received support from their peers.

This section will answer the following research questions:

- How do students perceive the function and impact of peer mentoring in their doctoral experience?
- How do doctoral students perceive the relationship between peer mentoring and other forms of institutional support?

Climate/Culture of Doctoral Education

In keeping with the literature (Espino, 2014; Gildersleeve et al., 2011; Pifer & Baker 2014), the doctoral experience was difficult for the Latinx and Black students in this sample; however, the level of difficulty varied across the sample. Students brought up various challenges that they faced pertaining to the departmental/institutional climate and the structure of their program, often noting that it was not built for students like them. The data also illuminated how difficult it was for students to get the support they needed from institutional sources or to access information that was critical to them. Importantly, peers played a profoundly important role in helping students overcome significant challenges in their program and also provided key information and support that they were not getting from formal sources such as faculty or institutional employees.

Students brought up different types of challenges they faced related to the overall environment of their respective programs; however, students experienced these struggles with

variability in terms of extent or severity. Students in the sample experienced them on a continuum. All but one student (Miguel) discussed how challenging the program environment was and highlighted the inconsistency between their institution's social justice mission and the lived reality of students in the program. For example, Laura and Jimmy brought up incidents on campus that they witnessed first-hand where faculty and program leaders tokenized students of color or failed to support underrepresented students who were in vulnerable positions (both incidents occurred during diversity-related events). Students (except for Miguel) also reported that they endured or witnessed insensitive comments from different members of the campus community and felt the effects of underlying biases and microaggressions related to their different marginalized identities. For example, Laura brought up feeling threatened and/or dismissed as a student in her program and felt as though her experiences were not validated within the program. Meghan, Rose, Laura, and Sofia hinted at the fact that the structures in place within their doctoral programs were not designed for students like them; some brought up the fact that faculty and administrators did not respond to the struggles they faced "in the most sensitive, culturally responsive way."

Students also brought up the ways that they did not fit in and their associated feelings of isolation. Sofia mentioned how she "is all the things [that her peers] are not" and referenced how she feels isolated from the true doctoral student experience and community given her multiple identities as an older student who works full time and identifies as a Latina. She perceived that individuals in her program treated her differently due to her age. Students also noted how their racial/ethnic background did not align with the values and expectations inherent within American doctoral education. In addition, Sofia and Laura highlighted the importance of community within their collectivist Latinx culture and discussed how it was hard to operate within a competitive

and isolating environment. The former also noted that she attributed how she interacted with individuals in her program to her cultural socialization; for example, Sofia noted that within the Latinx culture, students often view the professor as the expert or authority figure. Sofia was therefore less assertive than her white peers in asking for things she needed. Importantly, Sofia felt as though she carried the weight of her ethnic heritage and was very careful about maintaining a professional persona and not making mistakes or saying things that would reflect poorly on the larger Latinx community. Sofia, Meghan, and Laura also noted that their program felt very competitive to them and that everyone was always trying to prove their worthiness.

On the extreme end is Rose, whose experiences in the program were traumatic. Rose was bullied by multiple international students in her lab who tampered with her experiments, screamed and stomped while students were working, physically intimidated Rose, and at times even rendered it difficult for her to use equipment that was critical to her dissertation progress. Rose was eventually blamed for the negative behavior that was taking place which resulted in her leaving her lab altogether. Rose described that she felt like an outsider and had to establish herself as someone who was knowledgeable and as someone who deserved respect because she is both Black and a woman. Rose's undergraduate students regularly questioned her authority in the classroom and did not trust her expertise as an academic figure.

Variability in Student Experiences with Departmental/Institutional Climate

It is important to note that not all students in the sample found their departmental/institutional climate to be isolating, challenging, or hostile. For example, Miguel's experience in his doctoral program was exceptionally positive. He noted that the cohesive cohort model that was central to his degree program allowed students to support one another and move through different phases together as a unit. Further, the fact that he was matched with a more

senior peer formally through the institution (not one of the peers he mentioned in his interview) helped lower his anxiety about being in a doctoral program. Miguel also highlighted that his program faculty facilitated interaction between students and different faculty members; the ease with which students could switch advisors was tremendously important to him. Through the coursework and conversations with his peer, Miguel was able to work through issues relating to his own racial identity. Finally, Miguel made it a point to note that Public U. was the most welcoming and diverse institution he had ever been part of (both as a student and working professional). Another student, Jimmy, highlighted that the climate within his institution was not always a healthy one (at times he and other students faced microaggressive behavior); however, his experiences were not as negative as other students'. He noted that his experience in his lab was a positive one and that he received a great deal of support, direction, and encouragement from his advisor (something that other students also brought up).

Students across the sample highlighted how difficult it was to access different types of information and much-needed support that was important for their progress and success as doctoral students. Rose highlighted how her requests for things that seemed very reasonable had to go through a bureaucratic "chain of authority," "and so there's a very, very rigid hierarchy at the school, I think has prevented me from certainly like accessing opportunities and even [knowing] those opportunities even exist." Students struggled with tasks like complicated administrative processes, coursework selection, and course registration. Further, participants often had no idea that important financial, professional development, and/or academic-related opportunities were even available to them. Sofia aptly noted "[Private U.] is a place for swimmers, it is a place for people who are resourceful and who will have to get the information, because there are a lot of things that are not obvious."

Peers were critical in elucidating administrative processes to peers (e.g., filling out loan paperwork or registering for classes), linking them with resources that were available on campus that they had never heard of, and connecting them with individuals who could be helpful to them. Peers also conveyed opportunities that students were eligible for (e.g., funding opportunities or those relating to their professional development). Cross-case analysis revealed that students were not receiving the support they required from their departments/institutions. Students across the sample noted that their peers often filled in the gaps in formal institutional support mechanisms such as student support groups, faculty/advisors, counseling services, student affairs, and other institutional support offices. Further, students went to their peers for support on myriad academic-related issues (e.g., receiving help with academic support, asking about research questions, finding resources on campus, figuring out how to prepare for practica applications, and talking through significant struggles) when presumably they could have reached out to faculty. Importantly, this answers the research question: how do doctoral students perceive the relationship between peer mentoring and other forms of institutional support? The following three sections will answer the research question: how do students perceive the function and impact of peer mentoring in their doctoral experience?

Providing Social/emotional Support

Importantly peers played a vital role in providing social-emotional support to students through their struggles related to the climate. Laura and Meghan highlighted that they were able to openly process difficulties they experienced because their peers had gone through the same struggles and frustrations related to the institutional/departmental climate. They asserted how important it was to have students who knew what they were talking about, as Meghan notes:

I don't have to explain everything. They. . . completely get it. And just feeling like they're someone who understands me and someone who hears me and someone who has my back and someone who's like, no matter what they're like, ah, man, I can't believe that that person would do that. Oh, are you kidding me? And just people who are telling you that, it's okay to feel, however you feel angry, sad, upset, you know, whatever. It was just really nice. Invaluable.

Peers were invaluable in listening to students (Laura, Meghan and Rose) who struggled with the environment and/or had experienced biases and/or micro/macroaggressions from fellow students, faculty, and other individuals. Importantly, peers not only provided students with a space to unload, acting as crucial sounding boards, but also validated their (negative) experiences. Laura affirms "so I would always text her and tell her what was going on. And she would always hear me out and normalize it. And say, that sucks. You shouldn't be going through that. It's not fair. I've been here already and things like this happen and I'm sorry."

Academic-related Support

Students received valuable guidance and support from their peers pertaining to their academics. Peers provided students with detailed feedback on research-related papers, course assignments, and dissertations. It is important to note that many students valued how thorough their peers were with their editing and feedback and also noted that their peers would guide them in a way that was gentle. Students and their peers also got together for writing sessions (formal mentoring with a goal in mind) where they would meet weekly to work on their dissertations. During interviews students discussed how important this was for them and that it helped them move forward and build momentum toward achieving important goals. Peers often provided different types of support simultaneously, for example, the writing session would start with

students checking in with each other. As indicated in their counter-stories, Laura and Meghan received significant support with preparing for their practica placements from their peers. These peers reviewed and provided feedback on their application materials, helped them prepare for interviews, provided them their application materials to review, and provided emotional support through a very rigorous process (telling them that they would definitely get placed). Within the lab setting, Rose's peers helped her figure out how to get the resources she needed (lab equipment) for facilitating her research project.

Providing Support with Challenges

Importantly, peers helped students deal with significant challenges that they experienced within their departmental/institutional environment. Peers were instrumental in helping students figure out how to respond to negative treatment from campus members and potential steps they could take. For example, peers helped Laura, Rose, and Meghan strategize about how to respond to negative treatment, interpret and respond to tricky emails from faculty, assess whether it was safe to take certain steps, decide whether or not to escalate something, and/or determine if they should involve a third party. This strategic peer advising is especially important given the political context of institutions and doctoral programs. Surrounding Rose's traumatic experiences in her lab, her peer "was concerned enough that he ended up telling the chair of the department who was his principal investigator." This peer also provided much-needed advice on how to navigate the "shifting social landscape" in order for Rose to "kind of just fly under the radar enough." Students also discussed the reactions of top administrators to different incidents/events (those that occurred nationally or on/close to campus) with their peers. Jimmy highlighted how helpful it was to have a peer who allowed him to vent after racial incidents occurred on campus. This peer also provided perspective and insights on the situation. Jimmy's peer was crucial in

working with him to create a graduate organization to support Black engineers. In contrast, it is unsurprising that Sofia's peers did not provide her with support relating to the program culture and/or climate, given that her relationships were not close and were referred to as "superficial."

As indicated above, most students in the sample found the climate of their respective programs to be challenging (although at varying levels). Peers helped students navigate these challenges and further, helped them figure out solutions while simultaneously providing a safe space for students to vent. Peers provided a number of different kinds of support including friendship, a sense of community, and much-needed emotional support when students felt marginalized. They also helped students achieve their academic goals, provided feedback on research and academic papers, and provided students with practical advice on how to be successful in their programs. Further, peers pushed students through major hardships they were facing and helped reduce their sense of isolation within competitive environments. Peers made a profound impact on students' experiences in doctoral education: all but one student noted that they would have left their respective programs had it not been for the support of their peers. Finally, peers provide the much-needed support that students were not receiving from institutional sources. Having laid out the individual counter-stories and cross-cutting themes, the next chapter will interpret the findings in light of the foundational theory and the literature on peer mentoring at the doctoral level. I will also discuss limitations, and draw implications for research.

CHAPTER FIVE: Discussion of Findings, Limitations, and Implications

Spanning three universities and five disciplines, the six doctoral students in this study were all engaged in peer mentoring that they perceived as personally and academically valuable or even necessary for persisting through the degree. In this chapter I will describe the ways in which the mentoring that students received from their peers operated as a form of community cultural wealth and how the themes map onto Yosso's (2005) framework. I will then discuss the ways in which the top level findings align with the peer mentoring literature found in doctoral education. I will conclude the chapter by discussing this study's limitations as well as implications for research and practice.

Themes Mapping onto Community Cultural Wealth

In line with Yosso's (2005) community cultural wealth framework, Latinx and Black students in this study drew on their "knowledge, skills, abilities and contacts" (Yosso, 2005, p. 77) in order to seek out and create their own peer mentoring relationships within doctoral programs. The mentoring relationships that students had with their peers served as a vital source of social capital, defined as networks of people and community resources (Yosso, 2005). Peer mentors drew on their own assets to provide students with the tools and resources needed to maneuver through complex systems that were not designed for their success. Participants also used their own social capital by way of their abilities in drawing instrumental and social support from their peers. The following section will describe the ways in which peer mentoring operated as a form of community cultural wealth and how the themes map onto Yosso's (2005) community cultural wealth framework. Importantly, codes corresponding with resistant and navigational capital were strongly represented in the data.

Navigational Capital

As mentioned earlier, peers played a critical role in helping students navigate through the complex labyrinth of doctoral education. In myriad ways, peers provided different forms of navigational capital to students, pairing them with tools and resources needed to maneuver through complex systems that were not designed for their success. Students discussed how they went to peers for guidance and support on how to navigate their departmental/institutional structures For example, peers provided advice on aspects such as completing paperwork and other administrative processes and applying for student loans. Peers helped students adjust to their respective programs by explaining the ins and outs of how to be successful in the program, for example, how to structure their time to be most efficient. Importantly, when students had trouble accessing different forms of necessary support or resources, their peers taught students how to access them through the institution's hierarchical and bureaucratic systems to obtain what they needed. Further, through their peer relationships, most students were able to learn about key opportunities, hidden knowledge, and important resources they otherwise would not have been aware of. Perhaps even more importantly, peers were instrumental in helping students overcome challenges within a climate that was not designed for their success (participants mentioned this in interviews).

Resistant Capital

Top level codes and associated themes in the data elucidated how peers were instrumental in providing students with what Yosso (2005) terms "resistant capital": skills or knowledge about behaviors that resist, oppose, and challenge system inequality (Delgado Bernal, 1997; Solórzano & Delgado Bernal, 2001, Yosso, 2005). Notably this form of capital is developed through an awareness of embedded forms of oppression and a sense of agency

(Espino, 2014). As discussed in the previous chapter, peers supported students with numerous challenges including experiencing isolation and feelings of not belonging, witnessing and/or experiencing micro/macroaggressions on campus, and facing bullying relating to the departmental/institutional culture and overall program environment. Students discussed how difficult it was operating within their institutions with their racial (and other intersecting) identities.

Peers also validated students' negative experiences in the program and discussed how their feelings and experiences were attributed to their programs as sites of oppression and inherent racism (and not associated with their own capabilities). This is in line with Espino's (2014) assertion that resistant capital is developed through an awareness of systemic forms of oppression. Peers not only listened, but also validated and normalized students' hardships. This affirmation is especially important given that racially marginalized students may question if they are actually experiencing an aggression or just imagining it. Peers took this one step further by strategizing with students on potential steps they could take to overcome challenges; this included communicating with superiors and dealing with highly sensitive situations and political dynamics.

It is important to note that in addition to providing students with the different forms of resistant capital mentioned above, peers also helped students cultivate a resistant mindset so that they could continue to overcome any future challenges. Peers served as sources of inspiration for students and confirmed their intellectual abilities. When students were doubting themselves, feeling dejected, or questioning their abilities and worth, peers reminded them that they were worthy, intelligent, and deserved to be in their respective programs. Students' peers, especially those who were more senior, were living examples of individuals who had experienced or were

currently experiencing the same hardships related to the program environment and culture. When students were exhausted and contemplated leaving their degree programs, peers were the ones to "talk them off the ledge" as Miguel stated, ultimately serving as a safety net. Peers also served as role models for overcoming obstacles, resisting negative messages about one's abilities and worth, and making it through one's program. In addition, peers were instrumental in teaching students to advocate for themselves and be more assertive in asking for support or specific guidance from faculty; this was especially helpful to students who felt intimidated or worried about asking for support and/or were concerned about how they would be viewed by faculty.

It is worth noting that when participants brought up their racial background, it pertained to how they experienced being Black and/or Latinx within the context of their departmental/institutional environments. For example, students discussed how their peers helped them deal with damaging remarks about their intellectual abilities or feeling like an outsider within their doctoral programs. With the exception of one student (Miguel), participants did not discuss the role that their peers played in helping them develop or examine their personal racial identities. Although peers provided students with different forms of navigational and resistant capital, students also possessed their own social capital by way of their abilities to draw instrumental and social support from their peers (Yosso, 2005). Students also displayed resistant capital as they used their agency to locate and construct alternative support structures when they were not receiving what they needed from institutional sources. Data revealed that these students found answers to their questions, accessed privileged information and knowledge, obtained support where it was lacking, cultivated relationships with peers that would pull them through severe challenges, and ultimately, figured out how to survive.

Within interviews, students made it a point to discuss how they had to take their own initiative in order to build systems of support. All but one student (Sofia) brought up the fact that they were proactive and strategic in building relationships with their peers. Importantly, students were aware that they were not obtaining the various types of support they needed from formal institutional sources (institutional offices/employees, student groups, etc.) and knew they had to do something about it. The onus to fill in the gaps in formal institutional support was placed squarely on their shoulders. Data also revealed that students constructed their own mini communities within their departments. These were not full communities but instead were buffers against difficult program environments that compensated for a lack of community within their institutions.

Intersecting Forms of Capital

Although Yosso (2005) differentiates between forms of capital, not all types of participants' peer support fit neatly into either resistant or navigational forms of capital. Instead, types of capital are cross-cutting. Students often received multiple, simultaneous forms of support from a single peer that fit more than one type of community cultural wealth. For instance, peers validated students' struggles and discussed the ways in which departmental/institutional practices were responsible for their negative experiences (resistant capital), while also helping students figure out how to navigate departmental processes and hierarchies to determine possible solutions (navigational capital). Race is an important factor in constituting the challenges students faced. However, it is also important to highlight that students' experiences cannot be directly attributed to their racial background or any single identity they hold. As a few participants mentioned explicitly, students' multiple, intersecting identities very likely influenced how they experienced the program; however, they could not

directly point to one specific identity that may have influenced their experiences or challenges. In addition to talking about racial identity, students brought up their gender identity, first-generation status, and social class. Students are also employees, spouses/partners, and cohort/non-cohort members. For example, it was unclear to one participant (Sofia), whether her feelings of being an outsider were due to her status as an older student, a full time worker, and/or a racially minoritized woman. Students may have been enduring certain challenges due to one or more of their different identities; however, these challenges may have also been informed by the difficulties of doctoral study shared by all students moving through a rigorous program.

It is also important to note that the academic and social/emotional forms of support that students received were intertwined and indivisible. For example coming together to work on their dissertation-writing (academic-related support) also provided students with social-emotional benefits by helping to lessen their feelings of being overwhelmed and stressed out with deadlines. Further, students often combined social/emotional and academic-related support in one interaction or occasion. When students met to work together on academic projects, for instance, they would often start the session by checking in and unloading everything that they were feeling. Students then provided guidance to one another and tips on how to move forward with different issues they were facing. This suggests that the two types of support are reinforcing and complementary in nature.

Connection to Previous Scholarship

The following section discusses the ways in which the findings map onto the peer mentoring literature found in doctoral education. Findings both align with and contradict existing scholarship. Importantly, the data expand on the findings within the very small body of literature focused on peer mentoring at the doctoral level. As discussed in chapter two, the vast majority of

studies related to peer mentoring and its effects center on undergraduate students. In contrast with the literature at the doctoral level, there are a higher number of studies at the undergraduate level that focus explicitly on Latinx and Black students.

Value in Non-hierarchical Peer Relationships

Consistent with the literature, students greatly value their relationships with peers and derive unique benefits from this non-hierarchical form of support. Students in this study overwhelmingly cited their relationships with peers to be profoundly important to their success as doctoral students. Students noted that they could be completely open with peers; they could discuss their greatest fears, challenges, and internal doubts with their peers and that the latter could easily understand them. Five of the six students in the sample (with the exception of Sofia) were completely transparent with their peers in ways that are typically not possible with faculty. These results are in line with Chui et al.'s (2014) study comparing advisory and supervisory relationships which found that peer relationships were generally less formal and more open. This is expected given that peers are roughly equal in age and power (Angelique et al., 2002; Collier, 2017; Terrion & Leonard, 2007), unlike hierarchical student-faculty mentoring relationships. The findings further solidify Jackson and Price's (2019) assertion that multi-mentor networks may be an answer to the "increasingly complex academic environment where a hierarchical mentoring relationship is no longer realistic, nor desired" (p. 102).

Peer Mentoring As a Means to Fill in Gaps in Institutional Support

As in the literature on doctoral students of color, students in the study noted that their peers helped fill in the gaps in support from formal institutional sources (faculty, institutional offices/employees, student groups, etc.) within their programs. For example, their experiences echoed the scholarship indicating that Black and Latinx doctoral students generally do not

receive the kind of critical and constructive feedback that they need from faculty in order to develop their intellectual, research, writing, and teaching skills (Turner & Thompson, 1993; Williams, 2018). As in the literature on these specific student populations, certain students in this study also reported negative interactions with faculty (Barker, 2011; Johnson-Bailey et al., 2018; Thomas et al., 2007) within the traditional hierarchical and dyadic model of mentoring. Students in the sample highlighted that they leaned heavily on support from peers when institutional support was lacking and that there was a greater level of usefulness in going to peers (compared to their advisor) for things like learning how to prepare for comprehensive exams. They went to peers when they had questions and/or concerns and were thus receiving the support they needed from non-institutional sources.

Positive Effects of Peer Mentoring for Doctoral Students

The data from this study confirm for doctoral students of color important findings from research on undergraduate peer mentoring, including increasing social connectedness and promoting a sense of belonging (Hall & Jaugietis, 2011; Pérez et al., 2018; Sanchez, et al., 2006), and support with learning and curriculum (Faucette & Nugent, 2012). Students in this study said that peers helped them persist toward their degrees. This finding suggests that the decreasing attrition rates found among undergraduates who receive peer mentoring is also a likely outcome of doctoral student peer mentoring. As with the undergraduate research, persistence is likely to result from peers who encourage positive academic and social outcomes for students and counter the isolation and disengagement Latinx and Black students often face (Leidenfrost et al., 2011; Sanchez et al., 2006).

Importantly, students in the sample indicated several benefits of peer mentoring that align with findings in the literature at the doctoral level. Similar to Holley's (2012) findings, students

in the sample were able to build a sense of community through their relationships with peers. Findings also correspond with Mullen and Tuten's study (2010) wherein students who participated in a cohort mentoring setup expressed a strong sense of connectedness and accountability to one another. Study participants frequently noted that their peers were also their friends. Students in the sample relied on peers to help them move forward with important academic goals, as in structured peer writing sessions.

The data also connects to Webb et al.'s (2009) results indicating that peer mentors provided invaluable social support, encouragement, and reassurance. Like Lowery and Geesa's (2019) finding with first-year doctoral student participants in a peer mentoring program, students in this study experienced increased self-efficacy through mentoring conversations. Participants in this study also noted their increased capability to successfully navigate their doctoral programs as a result of peer mentors both encouraging them and sharing their experiences and knowledge about what to expect in the doctoral program. Study participants repeatedly discussed how their peers helped them figure out the ins and outs of being a doctoral student and provided them with strategies to help them succeed.

Limitations

Despite the use of multiple strategies to increase the trustworthiness of this study and reduce potential researcher bias, it is important to discuss important limitations that may have affected the conclusions that can be drawn from this study. Key considerations center around methodological limitations, including participant sampling and recruitment.

The decision to employ a purposive criterion sampling approach was necessary in large part due to a lack of institutional data on doctoral enrollment by race and discipline for potential research sites. As a result, I was not able to determine if certain sites enrolled an adequate

number of Latinx and Black doctoral students who could participate in the study. Also, given the

dearth of Latinx and Black students enrolled in doctoral education (Gardner, 2008), random

selection of participants was not possible. As a result of these constraints, as well as the inability

to generalize from any qualitative design, it is unknown how this study might represent Latinx

and Black doctoral students across institutions, disciplines, regions, and time periods.

Further, the exclusion criteria for participant selection within the purposive criterion

sampling approach may have limited the findings. For example, students who reported that they

had not experienced peer mentoring were excluded from the sample; it could be that their

experiences with faculty mentorship and formal institutional supports might be quite different

from the students in this sample. The decision to exclude first-year, first-semester students

assumed that they may have not had the opportunity to receive peer mentoring. However, there

may have been first-year, first-semester students within the three research sites who did in fact

receive peer mentoring. These students may have been able to share unique ways that their peers

helped them transition into the program or certain elements of their experience that were not

present in the findings. Further, students who held J or F visas were excluded from participating

due to the fact that they presumably have a different cultural context than students who have

gone through most or all of their schooling in the U.S. It is crucial to note that the experiences of

international students and those students who are undocumented could have undoubtedly added

to the richness of the data and provided nuance to the final conclusions. These specific

populations are an integral part of our country's student population and their insights greatly

benefit research.

Among students who met the participant selection criteria, I chose participants with the goal of maximizing the diversity based on race, academic discipline, and social identity. However, it was challenging to recruit students across STEM, even given the robust recruitment strategy which included multiple avenues of reaching students. Further, there was disproportionately high interest in participating in the study from students within education-related fields. This may have been due to any number of reasons including the possibility that these students had a greater interest in this study, given its higher education focus. Although this study does include students from a broad range of disciplines, only two students in the sample were from a STEM field. It would have been ideal to include additional students who could speak to their experiences in labs for example or to include students within mathematics-focused disciplines who could speak to their unique discipline-based challenges and experiences. Including students across additional STEM disciplines would have increased the confidence in common patterns that arose in students' experiences with peer mentoring and would have further enabled me to describe any unique variations in how students receive support from one another within different disciplinary environments (Patton, 1980).

It is also important to highlight that students who were able to participate in the study needed the emotional and mental bandwidth to do so. Given the multitude of challenges that Latinx and Black students face in doctoral education, it is not far-reaching to say that many students might have been too exhausted or burnt out to even think about participating. The students who were able to take part in this study were in a position to do so; others might have been facing even greater struggles than those that were represented in the findings.

Unfortunately, these voices were not captured; perhaps if these students did participate, the findings and conclusions would have been different.

Implications

This study's findings hold implications for both the field of higher education and for research. The study confirms the literature documenting the different challenges that Latinx and Black students face at the doctoral level and illustrates the need for structural and systems improvements in institutional support services and advising. The positive effects of peer mentoring for most students also highlights the need for higher education leaders to create robust and intentional programs centered on facilitating peer mentoring relationships as well as additional avenues for students to engage in peer mentoring. Findings also point to ways in which institutional leaders can structure peer mentoring programs in order to yield positive effects for students. Finally, there are important considerations for future research directions related to doctoral education and more broadly, students of color.

Improving Current Institutional Structures

It is important to note that certain students in this study brought up the ways that they received a great deal of support, direction, and encouragement from their advisors. This connects to the literature at the doctoral level that emphasizes the crucial relationship between students and faculty members. Importantly, findings from this study illuminate that peer relationships are also critical to the success of Latinx and Black students. Specifically, students across the study noted that the peer mentoring they received filled in gaps in formal institutional support (e.g., faculty, institutional offices/employees, student groups). Cross case analysis of the data revealed that current institutional support structures were not working for Latinx and Black doctoral students, pointing to the need for significant improvements within institutional support services

and advising structures. Data also illuminated that students were more comfortable going to peers for different types of questions and felt as though they could ask their peers anything and without feeling stupid. Students also highlighted how they could be completely open and transparent with peers. Another important finding was that students were often in the dark about important resources and information that were critical to their academic/professional development and growth. Further, students learned about critical information from their peers as opposed to institutional staff and/or faculty. Departmental administrators must critically re-examine current institutional support mechanisms to determine how students are using them and what students actually derive from such mechanisms and ensure that students are receiving the support, resources, and knowledge they need to be successful.

Relatedly, literature pertaining to the experiences of Black and Latinx doctoral students specifically has drawn attention to the many different types of challenges that these students face within the structure of their respective institutions. This study corroborates these findings and calls for the same kinds of structural and systems improvements within institutional support services and advising. Higher education leaders must work on these significant cracks in the institutional system to ensure that all students receive the support they need in order to be successful. This includes developing new practices that ensure that students access key support services as well as increasing visibility of knowledge and resources that are often hidden from students who need them most. Finally, we must rethink and redesign the inherently hierarchical student-faculty relationship so that students feel comfortable raising all their questions and concerns with their faculty members. This is by no means an easy goal to achieve; however, given that students in the sample went to peers for questions about coursework, project feedback, practicum placement preparation, and research, this effort is paramount. Importantly, students

discussed the possibility of leaving their doctoral programs with their peers. Although it is not a substitute for rectifying these significant gaps in formal institutional support, the data from this study revealed that peer mentoring is critical for Black and Latinx students. In sum, facilitating peer mentoring and strengthening faculty mentoring are both vital.

Positive Effects of Peer Mentoring

The findings illuminated just how impactful peer mentoring is for Black and Latinx students at the doctoral level across different types of institutions. For most students in the study, their peers were nothing short of life savers. Students' peers provided them with a multitude of support, often acting as a catch-all safety net; this included forming working groups to achieve academic goals, providing advice on preparing for rigorous examinations, reading and providing feedback on academic/research work, working with them to prepare for challenging practica placement, and inculcating strategies on how to navigate life as a doctoral student. Peers also boosted students' confidence and affirmed their worthiness and intellectual abilities when students felt dejected and hopeless. These positive findings highlight the need for higher education leaders to create robust and intentional programs centered on facilitating peer mentoring relationships as well as additional avenues for students to engage in peer mentoring. Unfortunately, not all Latinx and Black doctoral students have peer mentors; this highlights the need for leaders to think of innovative ways to bring students and potential peers together. Findings also revealed how peer mentoring programs can be designed to facilitate maximum benefits for students.

Conditions that Facilitate Positive Peer Mentoring Relationships

The results of this study inform the ways in which institutional leaders can structure peer mentoring efforts in order to yield positive effects for students. Participants' peers who were

most influential on their success had certain characteristics. One of the most significant findings is the invaluable support that students received from same-race peers or other students of color. These peers provided a critical safe space for students to discuss the ways in which their program environments were particularly challenging given their racial/ethnic backgrounds. Students were able to process hardships and be fully transparent about what they were experiencing. Efforts that bring students of color and/or same-race students together is critical and this must be a focus within institutional planning.

It is crucial to note that although peers provide invaluable support for students because they wish to, they are taking on a responsibility that requires a great deal of time and effort. Providing this type of wide-ranging, highly impactful mentoring for students should be the onus of the institution. The burden of ensuring that students are successful should not be placed on other students- especially students of color. This mirrors the unrewarded, quiet efforts that faculty of color often invest when they mentor students of color (Blackwell, 1996; Smith & Witt, 1993). Students should be compensated for their time, a practice that would incentivize other students to serve as mentors. Latinx and Black doctoral students should also be included in the decision-making processes surrounding how to best support students. It is important to also note that students in this study did have extremely impactful relationships with white peers, who were invested in their success. Practitioners may also want to think about ways to develop white students so that they can serve as positive companions for students of color. One possible avenue might include increasing cross-race student engagement that would allow for students to deeply interact with and learn more about the lived experiences of Black and Latinx-identify students within predominantly-white institutions.

In addition, most peers in this study were more advanced in their respective programs than participants. Having gone through major milestones and challenges, these peers were poised to share their knowledge and experiences with junior students. Advanced students have a wealth of knowledge that junior students are often in dire need of. Administrators and faculty should be more intentional in designing activities and events where students can meet peers who are more advanced in their programs.

As noted in the previous chapter, formal mentoring relationships are more likely to be assigned by the organization, are of shorter duration, and are focused on defined goals (Ragins et al., 2000). These relationships are thought to be more superficial and less comfortable than informal mentoring structures (Fagenson-Eland et al., 1997). In contrast, informal mentoring is typically unstructured, does not have formal program agreements, and is based more on personal developmental needs (Kram, 1983; Tourigny & Pulich, 2005). Institutional-sponsored settings can be informal (e.g., social events, departmental gatherings, end of year celebrations), or formal (e.g., dissertation writing group, department-run writing retreat, cohort program, peer matching set-up) avenues for students to engage in peer support. Alternatively, students themselves may initiate and establish (student-initiated) formal and informal structures to engage in peer mentoring. Formal contexts may include instances where students set up a structured writing or study group where they meet regularly to work on a specific goal, whereas informal contexts may include students deciding to meet once a week for meals or coffee to share experiences and/or advice. Following this, an important finding was that roughly 80% of the participant-peer relationships were student-initiated. Students and their peers decided to come together and support one another on their own. Although the underlying goals of peer mentoring programs that take place within either formal institutional-sponsored settings (e.g., dissertation boot camps,

department-run writing retreats, programs where students are matched with a peer) or informal institution-sponsored settings (e.g., departmental social events, celebrations sponsored by the institution) are important, they may not be effective in the long run. Students may in fact feel more comfortable coming together with their peers in a more organic manner, outside of institutional confines. It may be more effective for institutional leaders to help students to connect with one another and suggest ways in which they might choose to continue their relationship.

This study's mentor pairs illustrate different possibilities for these ongoing organic relationships. About half of the peer mentoring relationships in the study were both informal (e.g., deciding to meet once a week for coffee to share experiences and/or advice) and formal (focused on defined goals and outcomes) in nature. For example, at certain periods students would check in and socialize with one another (informal mentoring), while at other times they would meet to work on their dissertation (formal mentoring). Half of all peer relationships were informal. Only one was solely formal: Sofia's relationship with one of her peers occurred within an institutional-sponsored setting (classroom), where she was paired with a peer so the two could edit each other's class work. Sofia also referred to this relationship as "superficial."

Faculty and practitioners who do want to create peer mentoring programs might want to think about structuring programs so that students have the option to simply meet and get together to support one another (informal mentoring) or to meet in order to work toward a specific goal such as working on the dissertation weekly for two hours a week (formal mentoring). It may also be effective to instead let students figure out what their relationship will look like. Another important point is that not all peer relationships may be helpful to students. The findings reveal that students who were close to their peers and considered them to be friends had

overwhelmingly positive effects from their relationships. Students may not experience the same benefits if they are matched with someone and things do not simply click. This coincides with the point mentioned earlier; leaders may want to develop new pathways for students to connect with one another and then let them take it from there.

Addressing Problematic Structures/Practices in Doctoral Education

The holistic themes and cross-case findings illuminated the systemic issues in doctoral education that contribute to a negative experience for students. As mentioned earlier, Latinx and Black students in the sample experienced different types of challenges related to the overall campus climate while also hinting at the fact that the structures in place within their doctoral programs were not designed for students like them. Most students reported that they endured or witnessed insensitive comments, faced underlying biases and microaggressions related to their different marginalized identities, and were threatened and/or dismissed from campus members. Students also noted how their racial/ethnic background did not align with the values and expectations inherent within American doctoral education and struggled to fit into the competitive, independent nature of their programs. Finally, students across the sample highlighted that they were not receiving adequate support and key information from formal institutional sources and that their peers were filling in this significant gap. Drawing on a critical race theory lens, I will discuss key systems, practices, and policies within doctoral education that should be examined and altered in order to better support Latinx and Black students at the doctoral level.

The importance of collecting data in order to make significant and positive systemic changes cannot be overstated, especially given the research-focused nature of doctoral education. Institutional/program leaders and higher education researchers must work alongside students to

critically examine and collect data on the ways that structures in higher education (e.g., scholarly engagement, professional and academic development, mentoring) function. Important questions to consider might include: who is benefitting from each area and function? What are the interpersonal dynamics on research teams? What types of student behavior are rewarded and why? How can we ensure that we integrate students' cultural values (e.g., collectivism, interdependence, community-based work) into different structures? Do certain students thrive within coursework over others?

It is also imperative to question the rewards structure for members of the faculty and how this impacts the experiences of Latinx and Black doctoral students. Institutions in higher education place significant emphasis on research productivity, the successful attainment of grant funds, and national visibility. This reward structure calls for faculty members to work towards competing goals and demands in order to attain tenure and/or promotion, leaving little time and/or need to develop themselves as mentors for Latinx and Black students. Institutional leaders must emphasize mentoring and the importance of creating new efforts to improve the experiences of marginalized students in the tenure and promotion review process. This will signal to faculty the importance of prioritizing racially marginalized students and provide key incentive.

Another important area of concern is how students experienced the overall climate. Students in the sample did not just experience hardships in a single, siloed setting (e.g., lab, classroom, meetings with faculty); they noted how they felt isolated across various settings in their institutions. This points to the need for intentional and thorough assessments of the departmental/institutional climate particularly in predominantly-white institutions. There may be a disconnect between how faculty and departmental leaders think Latinx and Black doctoral

students experience their programs and the reality of their lived experiences. Climate-related assessments should evaluate how students of color experience the classroom, social and out-of-class experiences, relationships with faculty, and mentoring on campus. Likewise, faculty should share insights on what it is like for them to provide different types of support to students from various backgrounds and intersecting identities. What challenges come up for faculty? How can their departmental leaders better serve them? This data could yield insights that may help significantly improve the ways in which students experience doctoral education. One solution might include building cohort learning experiences where doctoral students take coursework together, build community and provide mutual support, and prepare for significant milestones together.

Implications for Research

This study also has key implications for research related to doctoral education and student of color populations. As stated in chapter one, few empirical studies examining the effects of peer mentoring for doctoral students exist. The majority of studies that do exist at the doctoral level do not explicitly focus on students of color (e.g., Grant-Vallone & Ensher, 2000; Mullen & Tuten, 2010). The findings of this study help address this significant gap in the literature and provide an in-depth investigation into how Latinx and Black students at the doctoral level engage in peer mentoring. Additionally, the literature on mentoring that does exist at the doctoral level focuses largely on the relationship between students and faculty due to the centrality of the advisor or the dissertation chair in doctoral education. This study can help generate research on peer mentoring and other alternative doctoral student mentoring models and structures to explore and test. More specifically, this study's results will help generate additional scholarship on what mentoring models best support students of color at the doctoral level.

Future studies should include a more robust student sample with students from different types of institutions. For example, it might be helpful to examine the peer relationships of Black and Latinx doctoral students within additional minority-serving institutions (MSIs) as these institutions are known to have greater support mechanisms available for students. Future research should also include students from different geographic regions to investigate the impact that these factors have on peer mentoring relationships. In addition, peer mentoring among white students and student of color populations should be studied. Although students in this study had positive relationships with white peer mentors, it is not certain that this is true for other doctoral students. Additionally, research should examine how institutions can better facilitate peer mentoring relationships given how important they are for Black and Latinx students.

Finally, although peer support has been shown to influence student retention, learning, and social and emotional development for undergraduates (Flores-Scott & Nerad, 2012), these specific effects have not been investigated at the same rigorous level within doctoral education. Quantitative studies should examine how many Latinx and doctoral students actually have peer mentors as well as the relationship between having a peer mentor and outcomes such as student satisfaction, academic and professional development, and retention.

Conclusion

The need to support the success of Latinx and Black students at the doctoral level is critically important for higher education leaders and practitioners. Given the trends of low persistence and degree attainment rates among Latinx and Black students in doctoral education, the significant on-campus challenges due to their race/ethnicity, the lack of positive mentoring relationships with faculty, and the dearth of same-race faculty members to support them, it is important to explore how peers might help to fill this void in overall support. This study is

among the first to investigate the experience and perceived effects of peer mentoring for Black and Latinx doctoral students. The results of this study will inform future research, policies, and interventions in order to increase the success of Black, Indigenous, and student of color populations in doctoral programs, leading to increased racial/ethnic diversity in the U.S. professoriate.

APPENDICES

APPENDIX A. EMAIL TO ACADEMIC PROGRAM DIRECTORS/FACULTY

Good Morning/Afternoon,

I'm a fourth-year Ph.D. candidate in the higher education program at the Lynch School of Education and Human Development at Boston College.

I'm attempting to locate participants for my dissertation study that will explore how Latinx and Black doctoral students engage in peer mentoring and support within their campuses. I would like to inquire if I can conduct interviews with two to three students from your department.

I did reach out to the IRB office at your institution and the representative whom I spoke with mentioned that it would be okay for me to interview students after obtaining permission from your department.

Would it be possible for you to send out a short recruitment email to all current doctoral/Ph.D. students in your department containing information about this study? This email will also contain a link to a survey for students to complete, which will help determine if they are eligible to take part in the study. Please let me know if there is any further information I can provide. Thank you so much for your time and consideration.

Best,
Venus Israni

Ph.D. Candidate- Higher Education

Lynch School of Education and Human Development

Boston College

APPENDIX B. RECRUITMENT EMAIL

Hello,

I hope that this email finds you well.

I'm a third year, Ph.D. candidate (female-identifying, student of color) in the higher education program at the Lynch School of Education and Human Development at Boston College.

My dissertation will explore how Latinx and Black doctoral students engage in peer mentoring and support (i.e.: giving support/guidance/advice to peers and/or receiving support/guidance/advice from peers) within their campuses. This study is especially important to undertake given the vast scholarship evidencing how Black and Latinx doctoral students often experience an absence or lack of mentoring or support from their departmental faculty/advisor. I'm in the process of identifying participants who: 1) self-identify as Black and/or Latinx; 2) are currently enrolled in a research-oriented terminal degree leading to the dissertation; 3) have completed at least one semester in their doctoral program, and, 4) have received at least one type of support (please see examples of support in web-based survey) from at least one peer within their department or institution. Students who are mixed race but identify as Black and/or Latinx will be eligible for inclusion.

Participants will be asked to take part in a one-hour individual semi-structured interview to answer questions related to the ways in which they find and receive support from other peers, the nature of support they receive, the role that these peer relationships play in their larger doctoral education experience, and perceptions surrounding the role that peer mentoring plays within other institutional support services. Participants will be compensated with a $25.00 gift certificate to the campus bookstore or local restaurant.

If you are interested in participating in this study, please fill out the short web-based survey attached in this email. The questionnaire will help determine your eligibility for this study, and should take no more than five minutes to complete. Your responses will be kept confidential. After your eligibility to participate has been determined, all personal identifying information will be removed. If you are eligible to take part in this study, you will be contacted at the email you list in the survey. If you have any questions about this study, please contact me at israniv@bc.edu.

Thank you so much for your time,
Venus Israni

APPENDIX C. WEB-BASED SURVEY TO SCREEN FOR PARTICIPANTS

1. What is your full name?
2. What is your email address?
3. Are you currently enrolled in a Ph.D. or doctorate degree program (with the dissertation as a final product)?
4. What is the name of your degree program?
5. Which discipline/field are you in?
6. Which year are you currently in? (i.e.: first-year doctoral student)
7. Do you identify as Latinx/a/o or Black?
8. How would you describe your racial identity?
9. How would you describe your ethnicity?
10. Do you identify as gay, lesbian, bisexual, trans*, or queer? Please indicate.
11. What is your gender identity?
12. How would you describe your religious background/affiliation (i.e. Catholic, atheist, no affiliation)?
13. Are you on a F or J visa?
14. Have you received (or currently receive) at least one type of support (*please see examples of support below) from at least one peer within your department or institution?

    -If you answered "yes", how many peers (that you consider to be important to your progress and success in the program) have you received support, advice, and/or guidance from?

    Peer 1: Department/year in program/type of support received/is this peer a person of color?

    Peer 2: Department/year in program/type of support received/is this peer a person of color?

    Peer 3: Department/year in program/type of support received/is this peer a person of color?

    - If you answered "yes", under what context did the peer support/guidance occur?

    Please select from the following:

    A) Peer support/guidance that took place within an institutional-sponsored setting (e.g., occurred within a dissertation boot camp, department-run writing retreat, doctoral cohort-based program, program where you were matched with a peer formally)

    B) Peer support/guidance that was student-initiated (e.g., you or your peer decided to get together to connect and support one another)

C) Other – please describe

*Examples of support you receive/have received from peer/s may include:

-Technical- statistical help, writing help/support, practical help, learning a skill in a specific area

-Financial-related- support related to finding/applying for scholarships, travel and conference funding, work opportunities while in the program

-Academic support - writing support, comments and suggestions on drafts, feedback on papers and publications, professional support, sharing expertise, support with teaching and content, critical thinking

-Aspects of being a doctoral student- handling multiple projects, balancing different parts of life, learning how to advocate for yourself

-Social/emotional support- confirming your intelligence; enhancing your sense of competence/confidence; exploring personal and professional concerns; acts as a reliable friend; providing you with friendship, collegiality, socializing; being there for you; a listening ear; crying and laughing together; providing encouragement, inspiration; believing in you/your abilities; counseling on personal/professional work issues; providing you with direction, advice; being a role model

-Navigating the environment- Support with navigating the department/institutional context; campus climate-related support; support with any challenges you may face that are related to your identity/identities

-Being introduced or connected with people who are helpful

-Career support- guidance related to applying for jobs, postdoctoral opportunities, and networking

APPENDIX D. EMAIL TO STUDENTS INVITING THEM TO TAKE PART IN STUDY

Good Morning/Afternoon _____ ,

Thank you so much for filling out the web-based survey. I'm writing to inform you that you have been selected to participate in my dissertation study that will examine the ways that Latinx and Black doctoral students engage in peer mentoring.

I will email you the informed consent form which outlines the background of the study, what your participant entails, and any risks or benefits you may experience as a result of participating in the study.

Please let me know if you have any questions about the informed consent and/or the research study. Once you have returned the informed consent form, I will reach out to schedule time for our one-hour interview.

Do you have any recommendations of other potential participants who fit the participant criteria? These students can be within or outside of your own department at your institution.

Thank you so much,
Venus Israni

978-435-1164

Israniv@bc.edu

Ph.D. Candidate- Higher Education

Lynch School of Education and Human Development

Boston College

APPENDIX E. INTERVIEW PROTOCOL

INTRODUCTIONS

Hi, thank you so much for participating in my dissertation study. I very much appreciate you taking the time to talk with me today. Your experiences and insights are so valuable and will bring a great deal to this dissertation study.

I'm interested in how doctoral students like you connect with fellow students in ways that make a difference in your experience as a doctoral student. You said on your survey that you've had at least one helpful relationship with a peer at your university. I'd like to talk with you about that. I'm interested in the guidance, advice, and help that you receive from other fellow doctoral student/s. If there's someone else outside (student's institution name) who plays this role for you, you can mention that at the end of the interview, but for now I'm just interested in fellow students at [student's institution name].

This interview will last roughly an hour. Please stop me at any point if you need a moment to pause or if you need me to repeat any questions. If you feel uncomfortable answering any questions at any point, we can skip over them.

GRAND TOUR QUESTIONS

I want to start by getting a sense of how you experience your department/institution, especially in the context of your racial identity, and any other identities that resonate with you. I'd also like for you to take a step back and think about the bigger picture and what it's like to try to get different types of support at this institution (not peer support).

1.You said in the survey that you identify as X and Y. Are there any other identities that resonate with you that you might want to share? I'm especially interested in any aspects of who you are that seem to come up a lot for you as a doctoral student.

> **Probe:** Why do you think the identities you mentioned come up within your doctoral experience?

2. Can you talk about your own experience in getting the different types of guidance and assistance that you need on campus (for example, academic-related, career support, writing support, publishing/co-authoring, emotional support, etc.)?

> **Probe:** What are the different types of support on campus that you're aware of? Have

you used any of these?

Probe: Do you think that you receive the support and help you need as a doctoral student within your institution?

Probe: In what ways, if at all, do you think your different identities influence the

support you receive on campus?

Probe: What are the most challenging aspects of your institution/department with respect to getting support?

3. Let's talk about what the climate is like for you at (X institution). Think about what it is like for you as a (xyz person) to be in the various places and relationships associated with your doctoral studies

Probe: Different places and spaces may include: the classroom, departmental

gatherings, social events, the lab, etc. Relationships may include those with other

students in your department, course instructors, your dissertation chair, advisor, etc.

Probe: Are there particular aspects that you see as positive and supportive?

Problematic or troubling? Can you give any examples?

PEER MENTORING

I'd like to talk to you about your relationships with other students who also study within your institution (these can be students within or outside of your department/discipline and can be in the same class standing as you, or junior/senior to you). I'd especially like to learn about the experiences you've had (or currently have) with receiving different types of support from other students within your institution.

*Go through each peer one at a time for questions 4-11

4. First, can you tell me about any of the fellow student/students who you consider as most important in your program and who are helpful to you? (Start with first peer)

Probe: Is it a one-on-one relationship? A group of peers?

5. Tell me more about this person/these people and the ways that you may or may not have things in common with them.

> **Probe:** What is their racial/ethnic background? Are they full-time/part-time students? Do they live on campus/commute? Are they in your department? What year are they in?

> **Probe:** Is there anything else you'd like to tell me about these peers?

6. How did you meet this person/people? How did this relationship come about?

> **Probe:** What steps did you take to make this connection? What steps, if any, did you take to cultivate or sustain the relationship? Why was it important for you to do this?

7. (If student mentioned that they receive/d support within an institutional-sponsored setting). You mentioned in the survey that you receive mentoring from peers within an institutional-sponsored setting, can you describe this?

> **Probe: (formal setting)** Can you describe this program or setting where you receive support? What does this look like? Who facilitates this program (department/institution/an office)? Is there a specific focus on students providing support to one another? How often do you meet?

> **Probe: (informal setting)** What does this look like? How often do you attend this?

> **Probe:** How does the place where you receive support affect the relationship and what you get out of it?

(If student mentioned that they or other peers initiated opportunities to engage in peer mentoring). You mentioned in the survey that you and/or your peer/s initiated opportunities to come together and support one another. Can you describe this?

> **Probe:** What does this look like?

> **Probe:** Why do you and this person/people decide to come together?

> > **Probe:** Does it have some structure around it or would you say it's more casual?

> > **Probe:** How does the place where you receive support affect the relationship and what you get out of it?

8. How often do you interact with this person/people?

> **Probe:** Is getting this kind of support a regular part of your experience here or does it happen at certain points in the program?

Probe: How often do you meet? What dictates when you meet?

9.. What kind of support does this person/people provide you with?

> **Probe:** Can you provide examples? For example, is it emotional support? A friendship? Advice related to your dissertation? Academic support? Building up your sense of confidence and worth? Career-related? Professional development (co-authoring articles, publishing, presenting at conferences); navigating the environment as a person with your identity(ies)?

> **Probe:** In what circumstances is this person/people helpful? What role do they fill and how do they do it?

> **Probe:** How important is this type of support given the department/institutional environment?

10. In what ways, if any, do you think that this person/people has given you the guidance or tools you need to help you navigate through aspects of your program that you talked about earlier, surrounding the climate?

> **Probe:** Think about different contexts that you mentioned earlier and what it's like to be a student in your department/institution, social settings, classroom, lab, etc. given your identity/identities

> **Probe:** Did they help you figure out where to go or what to do or who to talk to in order to get what you need as a doctoral student?

If student brought up certain challenges they faced within their program:

11. In what ways, if any, has this person/people helped you to respond to the challenges you face in your program that you mentioned earlier?

> **Probe:** Does this person/people help you deal with ways that your department is structured that may not be helpful to you? Please describe.

12. What made you seek out support from other peers on campus? (CRT)

> **Probe:** Did it have anything to do with your racial identity or other identities? If so, please explain.

> **Probe:** Does this have anything to do with what you mentioned earlier about the department/institutional climate? If so, please explain.

13. How, if at all, do you think your cultural/ethnic background has prepared you to look outside of the usual people/places on campus, like faculty or university employees, and find support in this person/people? CCW Social capital

>   **Probe:** What are some of these lessons, values that you get from your culture?

>   **Probe:** How does your ethnic/racial background inform the ways that you find and

>   ask for support from peers?

I'd like you to think more about the bigger picture of your relationship with this person/people now. Think about the role that this person (and the support you received from them) has had on your doctoral experience.

14. Imagine what your life would be like without this person/people and without the support you receive from them. Where do you think you would be?

15. What impact did this person/people have on your experience as a doctoral student? For example, do you think the support you receive helps you persist in your program? Does it help you overcome certain barriers? Provide you with a sense of belonging?

>   **Probe:** What impact did the support you received from this person/people have on your experience as a doctoral student?

>   **Probe:** How important is this type of support given what it's like in your department/institution? How important is it given your ethnic/racial identity and/or other identities?

PEER MENTORING AND FORMAL INSTITUTIONAL SUPPORTS

I'd now like for you to think about how the support you receive from this person/people works with other forms of support that you might receive within your institution.

Forms of institutional support include relationships with your major faculty/advisor/other faculty members, dissertation chair, or other institutional employees, as well as services provided by institutional programs/offices (e.g., student affairs, student organizations, graduate program office, career services, financial aid, etc.)

16. What have you learned from your peers about the kinds of help available at the institution?

> **Probe:** Can you tell me more?

17. How might the support that you get from this person/people affect the ways that you use other formal institutional support services on campus?

18. How are these two kinds of support (support from this person/people and support from other areas of your institution) working together?

> **Probe:** Think about faculty/advisor/institutional employees as well as institutional
>
> offices
>
> **Probe:** Are there gaps? Is one form of support filling in the gaps of the other (peer support vs. institutional support)? For instance, does your relationships with your peer/s complement other forms of institutional support? Fill in some missing support? Compensate for problematic or negative experiences? None of these? Or does the support you receive from people in formal positions on campus or within institutional offices complement or fill in missing support you get from your peer/s?
>
> **Probe:** Do your fellow student/s provide support that is different, unavailable, or better than what you receive through other people/support offices on campus like faculty, advisors, student affairs staff)?

Thank you so much for your time today! Is there anything that you'd like to add that we may have missed or anything that you'd like to revisit?

APPENDIX F. INFORMED CONSENT FORM

Boston College Consent Form

Boston College- Lynch School of Education and Human Development

Informed consent to be in study: The Role of Peer Mentoring for Black and Latinx Doctoral Students' Success

Researcher: Venus Israni

Type of consent: Adult Consent Form

Invitation to be Part of a Research Study

You are invited to participate in a research study. You were selected to be in the study based on your responses in the Qualtrics participant screening survey which indicated that you 1) self-identify as Black and/or Latinx; 2) are currently enrolled in a research-oriented terminal degree leading to the dissertation; 3) have completed at least one semester in your doctoral program, and, 4) have received at least one type of support from at least one peer within your department or institution. Taking part in this research project is voluntary.

Important Information about the Research Study

Things you should know:

The purpose of the study is to understand the ways that Black and Latinx doctoral students engage in peer mentoring within their institutions. If you choose to participate, you will be asked to answer questions about your experiences with receiving support from one to three of your peers (whom you consider to be important to your progress and success in the program)

in a 60-minute semi-structured interview. The interview will take place via Zoom and will be recorded. The interview is designed to help me understand the type of support that your peers provide you with, how the support you receive from peers informs your overall doctoral education experience, and how you see peer mentoring fitting in within formal institutional sources of support. I will conduct the interview.

Risks or discomforts from this research include the possibility of feeling psychological discomfort through sharing your personal experiences related to what the climate is like for you within your program and what it's like to find and receive support within your program given your racial identity. You may also be worried about bringing up certain individuals (e.g., faculty,

staff) or aspects of their program in a negative way and fear that they will be identifiable within the dissertation and any related publications.

Taking part in this research project is voluntary. You don't have to participate, and you can stop at any time.

Please take the time to read this entire form and to email me with any questions before deciding whether to take part in this research project.

What is the study about and why am I doing it?

Literature shows that Black and Latinx doctoral students report an absence of support from their faculty within the traditional dyad and hierarchical model of faculty-student mentoring. Despite the critical role of faculty mentoring for student success in doctoral education, these students generally do not receive the kind of mentoring they need to be successful in their programs. This study will focus on how Black and Latinx doctoral students find support from fellow doctoral student peers within their department or institution and the specific ways that they receive support. This study will also investigate how students perceive the impact of peer mentoring on their overall doctoral experience. Finally, this study will investigate how students see peer mentoring fitting into the broader landscape of the institutional supports that are available (e.g., faculty, institutional employees, student organizations, institutional offices).

The total number of people in this study is expected to be 8 students.

What will happen if you take part in this study?

If you agree to take part in this study, you will be asked to participate in a one-hour, one-on-one, semi-structured interview via Zoom with me. Before the interview you will be asked to fill out a pre-interview online survey via Qualtrics that will take you approximately five minutes to complete. This survey will collect demographic information about you and will ask you to respond to questions related to the peer support that you receive/have received.

During the one-on-one semi-structured interview, you will be asked to answer roughly 20 questions about your experiences with receiving support from your peers. The interview will take place via Zoom and will be recorded. The interview is designed to help me understand the type of support that your peers provide you with, how the support you receive from peers informs your overall doctoral education experience, and how you see peer mentoring fitting in within formal institutional sources of support. During the interview I will also take notes.

You will be asked questions surrounding what the climate is like for you within your doctoral program/department/institution and what it's like to get different types of support on campus given your racial identity and any other personal salient identities. You will be asked to describe your relationship with one to three peers and the types of support you receive from them. You will also be asked to reflect on the ways that your cultural/ethnic background has informed the ways that you seek out and engage in peer mentoring.

Within two weeks of the interview, I will send you my written version of your overall story as well as emerging themes from your interview. I will ask you to indicate whether the written story

is correct and accurately reflects your experiences. I will give you the opportunity to respond in writing or to schedule a conversation with me to share any aspects of the story or themes that need correcting or revising.

You will be allowed to skip any questions that you do not want to answer or end the interview at any time.

How could you benefit from this study?

You may benefit from participating in this study because of the positive experience that results through having the opportunity to tell your story to a sympathetic listener and to reflect on the ways that peers have been supportive during your doctoral study. You may also benefit from appreciating the opportunity to add to the scholarship and educational practice on the importance of peer mentoring and the ways doctoral education may structure support services for future doctoral students who identify as Latinx and/or Black.

What risks might result from being in this study?

There are some risks you might experience from being in this study. Risks or discomforts from this research include the possibility of feeling psychological discomfort through sharing your personal experiences related to what the climate is like for you within your program and what it's like to find and receive support within your program given your racial identity. You may also be worried about bringing up certain individuals (e.g., faculty, staff) or aspects of your program in a negative way and fear that they will be identifiable within the dissertation and any related publications.

How will I protect your information?

The records of this study will be kept private. Your data may be used in future publications and/or presentations. However, I will not include any information that will make it possible to identify you in any sort of reports I may publish, in any publications, and/or in any presentations.

The risk of discomfort during the interview will be minimized by allowing you to skip any questions that you do not want to answer or by ending the interview at any time.

The risk of loss of confidentiality and privacy will be minimized by removing identifiable information whenever I present study findings and by protecting your personal data.

The first draft of your transcript, which will have identifiable information, will be stored on the secure Lynch School of Education password-protected server. Participants who consent to take part in the study will be assigned a random number as their participant ID number. Each participant will also be assigned a unique, coded identifier (pseudonym) that will be used in the place of actual identifiers.

All Zoom interviews will be recorded. Each participant's Zoom audio recording, the data from the participant screening survey, the data from the pre-interview survey, and the consent form will be downloaded and stored on the Lynch School of Education and Human Development password-protected server. Any of this data may be used in this study and in future publications

and/or presentations. However, I will not include any information that will make it possible to identify you. Once the transcription of each interview is completed, all original recordings of each interview will be destroyed/deleted off my personal laptop. Only Dr. Karen Arnold (my dissertation committee chair) and I will have access to the Lynch School of Education and Human Development password-protected server that contains the first draft of the transcript and the final de-identified transcript. Only Dr. Karen Arnold and I will have access to the hardcopy record that contains the participant ID numbers, participant names, their pseudonyms, and participant contact information. Only Dr. Karen Arnold and I will have access to the Zoom audio recordings, the completed informed consent form, the data from the participant screening survey, and the data from the pre-interview survey. The informed consent form data, the data from the participant screening survey, and the pre-interview survey data will be deleted from the online web-based accounts after I have downloaded the data.

The Institutional Review Board at Boston College and internal Boston College auditors may review the research records. State or federal laws or court orders may also require that information from your research study records be released. Otherwise, the researchers will not release to others any information that identifies you unless you give your permission, or unless I am legally required to do so.

What will happen to the information I collect about you after the study is over?

I will keep your research data to use for future research. Your name and other information that can directly identify you will be kept secure and stored separately from the research data collected as part of the project.

I may share your research data with other investigators without asking for your consent again, but it will not contain information that could directly identify you.

I will thoroughly go through your Zoom interview transcript and obscure any details in different contexts that might reveal your identity. I will disguise any potentially identifiable information about you and the contexts you mention in the interview including but not limited to: your department, institution, the names of campus-related programs, organizations, institutional offices, staff members, peers, and faculty you may mention during interviews.

How will I compensate you for being part of the study?

You will receive a $25.00 gift card to a local coffee shop or restaurant for your participation in this study. In the case that you leave the interview before it has been completed, you will receive half of this amount- $12.50

What are the costs to you to be part of the study?

There is no cost to you to be in this research study.

Your Participation in this Study is Voluntary

It is totally up to you to decide to be in this research study. Participating in this study is voluntary. Even if you decide to be part of the study now, you may change your mind and stop at

any time. You do not have to answer any questions you do not want to answer. If you decide to withdraw before this study is completed all data will be permanently deleted and will not be kept on the server.

If you choose not to be in this study, it will not affect your current or future relations with your institution.

Getting Dismissed From the Study

The researcher may dismiss you from the study at any time for the following reasons: (1) it is in your best interests (e.g. side effects or distress have resulted), (2) you have failed to comply with the study rules.

Contact Information for the Study Team and Questions about the Research

If you have any questions about the research now or in the future, please contact Venus Israni, israniv@bc.edu, 978-435-1164 or Dr. Karen Arnold, karen.arnold@bc.edu, 617-552-2649.

Contact Information for Questions about Your Rights as a Research Participant

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the following:

Boston College

Office for Research Protections Phone: (617) 552-4778 Email: irb@bc.edu

Make sure you understand what the study is about before you sign. I will email you a copy of the IRB consent form for your records. If you have any questions about the study after you sign this document, you can contact me using the information provided above.

I understand what the study is about, and my questions so far have been answered. I agree to take part in this study.

By clicking 'yes' on the Qualtrics survey I am providing my consent to participate in this study.

If you click "yes", you will be taken to the next page of the survey and will be asked to fill out the pre-interview survey.

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