Experiences of Perceived Racial/Ethnic Discrimination and Stress among Black/African American Graduate Students on a Predominantly White Campus: Results of a Qualitative Interview Study

Fathiya Abdi

A thesis
submitted in partial fulfillment of the requirement for the degree of

Master of Public Health

University of Washington

2019

Committee:
Clarence Spigner
Emily C. Williams

Program Authorized to Offer Degree:
Health Services
University of Washington

Abstract

Experiences of Perceived Racial/Ethnic Discrimination and Stress among Black/African American Graduate Students on a Predominantly White Campus: Results of a Qualitative Interview Study

Fathiya Abdi

Chair of the Supervisory Committee
Clarence Spigner
Department of Health Services

Significance: Experiences of discrimination are associated with increased stress and adverse influences on mental health outcomes. Though graduate students commonly experience stress and poor mental health, explorations of experiences of discrimination and their influence on stress among Black and/or African American (AA) graduate students is rare. Purpose: This study explored the experiences of racial/ethnic discrimination among Black/AA graduate students and how these experiences relate to experiences of chronic stress. Population: The participants in this study included 17 self-identified Black/AA graduate students attending a large public university in the Pacific Northwest. Methods: Utilizing face-to-face, semi-structured interviews, students discussed their experiences of racial/ethnic discrimination and
their perceptions of how these experiences have contributed to chronic stress. **Analysis:**

Interviews were transcribed and analyzed using grounded theory and thematic analysis through an inductive process. **Results:** Four major themes were identified: unfavorable treatment due to race and/or ethnicity across multiple environments; experiences of intense physiological, emotional responses to discrimination and processing complex decisions focused on optimizing their perceived safety; diverse strategies (thoughts and actions) to mitigate emotional and mental responses to discrimination; and strategies for improving the discriminatory climate. Qualitative analyses suggest that racial/ethnic discrimination is very frequently experienced by Black/AA graduate students and can impact their stress through emotional, mental and physiological responses to perceived discriminatory events. Participants described utilizing social support as a main coping strategy to mitigate the impacts of racial/ethnic discrimination. **Implications:**

Further mixed methods research is needed to explore the association of racial/ethnic discrimination and chronic stress in an academic setting. Graduate institutions should consider investment in policies that target structural, institutional discrimination and racism and increase social support structures and mental health services for students.
Background

It is widely known college students experience a wide array of poor mental health challenges including anxiety, depression, and isolation, as well as physiological, social, academic and financial stress. These mental health challenges are likely heightened for Black/African American (AA) college students because of the unique additional stressors they face. Specifically, due to most universities being predominantly white institutions (PWI), Black students have the added burden of race-related stress, or stress produced by racism, that can detrimentally worsen their mental health.

The link between racism, or “the ideology of racial superiority followed by discriminatory and prejudicial behavior” and poor health outcomes has been widely documented (Pieterse et al., 2012 & Williams et al., 2009). Minority racial and ethnic groups have worse health outcomes compared to White counterparts, with AA/Blacks exhibiting some of the worst health indicators (Dressler et al., 2005), even after taking into account factors such as income, neighborhood, health insurance type and comorbid illness (Williams et al., 2009). According to a literature review analyzing 62 studies on racism and health outcomes, the association between negative mental health outcomes was the strongest (Kwate et al., 2015). Experiences of racism have been associated with stress, psychological distress, depression, trauma-related symptoms and hostility. (Harrel, 2000).

Racism can take place through different avenues (institutional and individual level) and can be both unintentional and intentional (Larson et al, 2007). At the institutional level, (e.g., schools, such as Universities), Black students may be admitted but find themselves feeling marginalized by their peers and faculty. Furthermore, these experiences of marginalization may
be increasing over time. According to the US Department of Education, racially motivated hate crimes on campus have increased by 25% from 2016-2017. In just 2016-2017 alone, The Anti-Defamation League reports a total of 147 White supremacy rooted actions; motivated by a belief that the White race is inherently the dominant race, acts include racist fliers across campuses and holding inherently racist events. The campus climate further alienates students and creates a hostile, unsafe, and unsupportive space for many (Saddlemire, 1996). Experiences of racism can make “Black students perceive greater racial tension and hostility in their environment, greater levels of isolation, express lower levels of satisfaction, and feel less identified with the institution than White students do” (Thompson et al., 1991).

Other challenges include everyday micro-aggression, stereotype labels, lack of diversity on campus, isolation, barriers, explicit/implicit biases and limited resources for persons of color (POC) (Steele et al., 1995; Thrasher et al., 2012). These recurring factors create high levels of anxiety and negative emotions among students and may initiate physiological stress responses to deal with stressful situations. In a study measuring the biological and physiological impact of perceived racial discrimination among AA, it was found that individuals who had higher levels of perceived discrimination were more likely to have higher levels of physiological stress responses such as an increase in the hypothalamic and pituitary axis activity and autonomic inflammatory arousal of nervous system (Lucas et al., 2017). Navigating race conscious structures exposes Blacks to daily stressors contributing to the wear and tear of body and chronic stress (Geronimus, 2006).

Though the associations between racism, mental health, and stress are well documented, no study has described the experiences of racism or discrimination among Black/AA graduate
students nor how these experiences relate to stress. Therefore, we conducted qualitative study to better understand these experiences.

This study was informed by a conceptual framework (Figure 1), which draws from a substantial literature reporting chronic exposure to discrimination by African-Americans linked to high levels of chronic stress via stress responses, including allostatic load. (APA, 2018). (Sawyer et al., 2012). The model illustrates the process, mechanisms and pathways that can lead to chronic stress due to racial/ethnic discrimination that takes place in an academic setting. The solid lines are supported by literature and the dashed lines represent hypotheses made through literature.

Figure 1: Conceptual Model on Racial/Ethnic Discrimination and Chronic Stress
Racial discrimination can manifest through structural avenues (i.e. policies/practices derived from past histories- racial segregation), institutional avenues (i.e. racially bias practices in college admission) and individual avenues (i.e. individual biases, personal prejudice, microaggressions) (Wright, 2016; Hurtado, 1998). Environmental factors in which discrimination occurs produce feelings of stereotype threat and greatly affect students sense of belonging, generating high levels of anxiety and stress (Steele et al., 1995; Pincus, 1996). Additionally, Black/AA individuals may feel vulnerable to minority stress, the unique additional stressors (i.e. discrimination, racism, xenophobia) that can come with being a minority (APA, 2015; Thrasher et al. 2012.)

Perceived racial/ethnic discrimination produces physiological stress responses that can trigger the body’s fight or flight response to help deal with the discriminatory threat. (Lucas et al., 2017). Through the activation of physiological responses, feelings of anger, hopelessness, anxiety and other negative emotions arise (Lucas et al., 2017). In a study measuring the biological and physiological impact of perceived racial discrimination among African Americans, it was found that AA men and women who had higher levels of perceived discrimination were also more likely to have higher levels of physiological responses (Lucas et al., 2017). The constant activation of physiological stress response may lead to chronic vigilance and can result in the accumulation and an allostatic load of stress (Himmelstien et al., 2015; Hudson et al., 2016.).

Perceived racial/ethnic discrimination can affect the adaptation to stressful life events through two processes that are unique to each individual: cognitive appraisal and coping processes. Lazarus and Folkman (1986) proposed in the Theory of Cognitive Appraisal, individuals respond to external stressors through two processes, referred to as primary and
secondary (Biggs et al., 2017). Through the primary appraisal, an individual is classifying whether a situation is a threat and simultaneously, through the secondary appraisal, estimating whether they have the existing resources to cope with the acquired stress (Thrasher, et al., 2012). When the primary appraisal exceeds secondary, the individual does not have the necessary coping resources to deal with the perceived threat and/or mitigate its impact, and can result in heightened stress (Thrasher, et al., 2012). Effective coping mechanisms/resources and social support help act as a buffer to chronic stress (Thrasher, et al., 2012). According to the Stress Buffering Theory, influences of stressful environment can be offset by having successful coping strategies as well as a strong, interpersonal social support system (Holt-Lunstad et al., 2010; Pearlin et al., 1981).

Lastly, components depicted in Figure 1 can all intervene at different periods of person’s life indicating that discrimination can have a differing impact on individual’s life depending on life course factors such as the time, place and context (Gee et al., 2012). Discrimination that happened in the past may have an increased effect on individual’s stress due to sensitive, critical periods at the moment than discrimination exposure later in life. This may be due to adaptation or heightened increase of stress responses (Thrasher et al., 2012). The life course perspective allows us to predict that stress, body’s physiological responses, and effects of cognitive appraisals associated with discrimination can persist and accumulate over time leading to chronic stress.

**Methods**

Ethical approval for the study was granted by the research ethics committee at the University of Washington. This is a qualitative study based on semi-structured interviews with Black/AA graduate students. Qualitative design was ideal for generating in-depth understanding,
rich description, examining the lived experiences of individuals on the topic of racial/ethnic
discrimination and including student voices in the research process. In addition, semi-structured
interviews served useful in keeping interviews focused as well as providing “reliable,
comparable qualitative data across all interviews” (Jamshed, 2014) The qualitative study used a
grounded theory approach method, “the discovery of theory from data- systematically obtained
and analyzed” (Glaser & Strauss, 1967). The theory was the most suitable in that it provided an
inductive approach to analyzing the data in which themes and theory emerge from the data itself
and the researcher avoids applying pre-existing assumptions (Glaser & Strauss, 1967).

**Study Population and Setting**

Participants were eligible if they self-identified as Black or African American and were
enrolled in a graduate program at a large, state-funded university in the Pacific Northwest. As of
Spring 2019, the total enrollment at the university was 43,859 students; full time undergraduates
numbered 66.6% and full-time graduates was 27% (University of Washington Office of Register,
2019). AA students account for only 3.9% of the student population compared to 41.7% of
students who identify as Caucasian (University of Washington Office of Register, 2019). Black
faculty are also vastly underrepresented; among 4,709 total professorial and instructional faculty,
Black faculty comprised only 1.8% (University of Washington, 2018). Furthermore, racially
motived events and racist incidents/occurrences is not rare for the university. Just this May, the
institution received national backlash when an anti-Affirmative Action student organization held
a “Bake Sale” in direct response to a pro-Affirmative Action initiative. (Graham & Kenny,
2019). Prices of baked goods was dependent on race; Asian: $1.50, White: $1.00, African
American: $.50. Hispanic $.50 and Native American: free (Graham & Kenny, 2019). These
events can further promote racial hostility and tension on campus.
Primary recruitment strategies included contacting various School/Department counselors and/or advisors to send details of study via school/department email listservs (Appendix A), outreach material (Appendix B) displayed on campus, through word-of-mouth and snowball sampling methods. Inclusion criteria were (i) self-identified Black/African Americans, (ii) attending the large public institution in the Pacific Northwest of interest, and (iii) graduate student working towards a current degree program (Masters, Doctoral...etc).

Data Collection

Semi-structured interviews included 9 open-ended questions to provide participants the flexibility and the ability to talk freely followed up by probes to provide clarification if needed (Ulin et al, 2005). The interview questions were developed based on the conceptual model (Figure 1) and highlighted discussion on racial/ethnic discrimination and associated variables that may contribute to chronic stress. The interviews were designed to elicit information regarding experiences of racial/ethnic discrimination (including environment and context), emotional/mental responses to the discrimination, strategies (if any) to mitigate responses and lastly, potential recommendations for the university. A full example of the interview guide including questions and probes can be found in Appendix D. A pilot interview was conducted with a colleague, to ensure the structure and format of questions were clear and each question allowed interviewees the ability to freely discuss feelings and experiences.

Interviews were conducted during a 2 ½ month period. Interviews were audio recorded with participant permission and varied in length, approximately 30 - 60 minutes. Study setting took place predominantly on the university’s campus: 14 interviews were conducted in a private study room in the Health Sciences Library, 2 interviews in a classroom at the School of Social
Work and 1 interview took place at a café nearby, Irwin’s café. Location was chosen according to participant’s convenience.

Before the interviews began, participants were informed of the study’s objective and design, research procedures, the right to withdraw at any time, protection and confidentiality. Participants were then given written consent forms to read and sign before the start of each interview. Participants were ensured to ask any questions and were aware of their rights to refuse to partake in the study and could withdraw at any time for any reason.

Participants filled out a demographic background questionnaire including race/ethnicity, age, degree/program and school/department of study (Appendix C). Additionally, participants were asked to describe where they are from (rural, urban, large metropolitan area, international...etc) and in two sentences to briefly talk about themselves. The questions were designed to describe the person as a fuller person, and to know as much about the participant beyond basic demographic information (i.e race/ethnicity and age) (Appendix C).

No identifiers were linked to the data collected (i.e demographic data, individual interview notes and transcriptions.) With the participants approval, interviews were audio recorded and field notes were taken for all interviews.

Data Analysis

Audio recorded interviews were transferred to hardcopy and field notes along with recordings were utilized to transcribe data verbatim. The data was coded, analyzed and interpreted utilizing ground theory. A list of initial themes and sub-themes was generated through an inductive approach and open coding process that emerged from data. A codebook (Appendix B) was then developed with the purpose of providing a guideline for consistent coding across various individuals. Codebook structure includes code, sub-codes and a clear
definition/description of what each code is, in addition to a text excerpt. A second coder evaluated the codebook to ensure theme and sub-theme, terminology and definitions were clear and there was agreement about each theme.

Once the codebook was refined and finalized, codes were systematically applied to text utilizing a qualitative web-based coding software, Dedoose. Each transcript was read and a code was applied based on interpretation of text. Data was then further categorized and organized under appropriate themes and sub-themes that emerged from the data. Thematic approach allowed analysis of relationships and patterns between themes and subthemes.

Reliability & Validity

Numerous steps were taken to ensure reliability and validity was met. Each interview was conducted by the same interviewer to help reduce any bias as well as to ensure continuity across all interviews. A semi-structured interview guide was utilized to ensure the same questions was asked across all participants. Each interview was audio recorded (with permission), in addition, field notes was taken during the interview. Each participant was de-identified and given an identification coded. All participant data and collected files (consent form, interview transcripts, field notes, demographic information) was coded by a number (i.e participant #1) to ensure participant confidentiality and track data. In order to ensure inter-rater reliability, a second coder coded each interview transcripts utilizing codebook independently and blind to first coders codes, through Dedoose. Cohen Kappa was then utilized to calculate the level of agreement between raters.

Reflexivity

With regards to reflectivity, as a current Black graduate student, personal biases may have been brought into the interview. The topic of race-related stress and disparities is of interest
to me, and the research question was formulated as a result of those interests and curiosity around how racial discrimination at a PWI can impact the stress of students. The intent was to use the semi-structured interview as a guide, the interviews highlighted how easily transference can occur within qualitative interviewing. Although, relatability with a participant helps develop rapport, an essential component of interviewing, it may also unconsciously and unintentionally lead to interviewer bias. To mitigate these impacts, a semi-structured interview guide was developed and there was extensive preparation on how to respond to interviewee questions, how to show active listening, but, more importantly, refraining from contributing own experiences of what was being said.

RESULTS

Study characteristics

The study included 17 graduate students from various departments at the University of Washington. Students self-identified their race, ethnicity and gender. 14 participants identified as Black and 3 identified as Mixed race (i.e Black and White). Table 1.1 depicts the demographic characteristic of the study population including self-identified race, ethnicity, gender, student’s program and/or degree as well as school/department.

Each participant received a $25 Starbucks gift card at the end of the interview as a sign of appreciation for their time.
Table 1.1: Demographic Descriptive

<table>
<thead>
<tr>
<th>Participants</th>
<th>Race</th>
<th>Ethnicity</th>
<th>Gender</th>
<th>Program/Degree</th>
<th>School/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 17</td>
<td>Black = 14</td>
<td>African American = 9</td>
<td>Female = 12</td>
<td>Masters = 14</td>
<td>School of Public Health = 7</td>
</tr>
<tr>
<td></td>
<td>Mixed = 3</td>
<td>African = 3</td>
<td>Male = 5</td>
<td>Doctoral = 3</td>
<td>School of Social Work = 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Somali = 4</td>
<td></td>
<td></td>
<td>Evans School of Public Policy = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mixed = 1</td>
<td></td>
<td></td>
<td>School of Dentistry = 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Department of Communication = 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>School of Nursing</td>
</tr>
</tbody>
</table>

Themes

There were four emerging themes identified across all 17 interview transcripts. There was a total of 1293 individual codes across the interviews. Additionally, there were 45 sub-codes developed from the coding scheme. Quotes have been added to illustrate main findings.

**Theme 1:** Students reported experiencing unfavorable treatment due to their race and/or ethnicity across multiple environments at graduate school (e.g., on and near campus, inside the classroom, research lab).

All participants described feeling at one point in their life racially/ethnically discriminated in an academic setting and/or other setting. The settings widely varied including, inside a classroom not at the UW (i.e Elementary School), classroom at the UW, and/or off campus (particularly at place of employment). However, more than half reported experiencing
discrimination inside the UW classroom setting. One participant describes experiencing discrimination in every setting and not having just one particular experience. “It's been with faculty -- it’s been in academic settings, it’s been with staff, it's been on the streets, um...you know its -- it’s something where...so I definitely can walk back to different situations where its -- it’s happened or occurred.” Many of the experiences of perceived racial/ethnic discrimination in academic setting was through subtle micro-aggressions including uncomfortable comments from staff/faculty/students and/or other individuals. One student said, “I was taking an English course and (laughs) the professor kind of asks me to read a prompt off the board. I read the prompt, cause you know I can read! Um...and his initial response was, “Wow, you read very well for a Black girl”.”

**Theme 2:** Students reported experiencing intense physiological, emotional responses to discrimination and processing complex decisions focused on optimizing their perceived safety.

When faced with a discriminatory scenario, students stated physiological responses due to perceived threat. Most common physiological response was the change in body temperature. One participant stated, **“one thing that typically stays the same is kind of that intense heat that just kind of comes over me”**, another student echoed a similar response to discrimination and described, **the feeling…of intensivity in the body, like heat. It’s me figuring out how to address this?”** In addition to body temperature, students described feeling of heart racing, shaking (i.e finger’s shaking, voice trembling) and sweating.

Emotional response was the most frequently expressed response to racial/ethnic discrimination, all participants described an emotional response due to discriminatory scenario. In regards to racial/ethnic discrimination, one participant stated, **“It actually like - really- like it**
ruins my mood”. Of the emotional responses to discriminatory scenario, participants expressed feelings of anger, crying, embarrassment, sadness, shock and feeling uncomfortable, suppressing emotional response and/or confronting the event. A participant describes their emotional response, “Um...it doesn’t always last long but like an angry, like uh an anger that is such an entrenched reality that I myself and my community have no reason to still have to be responding to and dealing with.” Similar feelings expressed by other participants, anger was the most common emotional response to perceived/racial discrimination.

Similar to emotionally response, all participants reported a mental response and/or mental toll due to discrimination. The commonly reported mental response was lingering thoughts of the experience and/or dwelling about the discriminatory event such as thinking about the event even after it has occurred; for example, a participant stated, “a week and a half, two weeks later, [the event] will pop back up”. Majority of the participants did not know how to best respond and spent a great amount of time mentally weighing potential outcomes if they were to confront the issue. A participant best described this response as “...trying to play a game of chess in your head of like, “Alright, so now what?”. And, one is it worth my energy? What are the potential outcomes… is this a safe situation?” Similarly, another participant stated, “I think I sat there for a good like 10 minutes, just thinking like okay. I -- I didn’t respond. I literally said nothing. I-I I think just toying in my head like ...okay girl what you about to do? Because I know how I feel and I know the way he just made me feel, wasn’t right. I know what he said wasn’t right. And I felt super uncomfortable and I’m like okay what are you going to do? Are you going to sit here and approach the professor after class? But I was just like emotionally that might not go over well. So, I literally packed my stuff up and walked out and I never went back.”
Theme 3: Students reported using diverse strategies (thoughts and actions) as well as relying on social support, to mitigate emotional and mental responses to discrimination

Participants described utilization of various strategies (thoughts or actions) to help mitigate the emotional and mental responses of the discriminatory scenario such as seeking professional help, social support, engaging in activates, utilizing campus resources, providing and/or seeking validation and/or the use of substances (i.e. antidepressants). All students described some sort of support but social support particularly from friends and family was the most common. A participant stated, “...I have amazing friends so definitely being able to have these conversation with them uh...constantly and you know try to figure out (laughs) how to handle all these situations that I’m experiencing has definitely helped.” Students viewed social support helpful in that they were able to discuss experiences of discrimination, gain advice and/or receive validation of feelings.

Theme 4: Students recommended several strategies for improving the discriminatory climate for Black/AA graduate students at the University of Washington

All participants had recommendations in which the UW could implement and/or areas in which the UW should improve to better support students. When students were asked what recommendations, they had for the UW, students were adamant about the lack of institutional support for Black/AA students and students of color. 100% of participants expressed the need for institutional support and what exactly this recommendation would look like. A student explains, “there are no...resources whatsoever for being a student of color...there should be
intersectional resources for different identities, but there is nothing -- the resources that we
do have... aren’t even -- not that they’re even tailored to students color, they don’t even
have anyone that understands that experience working within those places.” Students also
strongly expressed the lack of diversity on campus, in the classroom and in the curriculum. One
student recommended, “…just bring in anti-oppressive, non-Eurocentric ways of being that
are really important particularly if you want to make students of color feel or allow them,
us to feel more included, making sure the curriculum is a reflection of who we are and our
contribution to academia.” Other recommendations include funding, mentorship programs,
resources that encompass the whole student, diverse and inclusive curriculum, increase in
faculty/students of color and providing a space in which students feel accepted and valued.

Discussion

In this small, qualitative study of African-American graduate students at a large state-
funded predominantly-white University, participants described substantial exposure to
racial/ethnic discrimination—both direct and indirect (i.e., microaggression). The latter was
more common and experienced through a series of subtle micro-aggressions from faculty/staff,
stereotype threat, implicit/biases, and/or policies and practices the University upholds such as the
lack of faculty/students of color on campus. The findings from this study are consistent with the
conceptual model (Figure 1). Reported experiences of discrimination reflected the lack of sense
of belonging and feelings connectedness to the university and the need to not conform to
stereotypes. When a discriminatory incident occurs, participants expressed feelings of anger,
doubt and stress. Many students choose not to confront the incident or address it directly in a
way that will cause attention. Instead individuals choose to internalize emotions in order to avoid
stereotype threat (i.e angry black women…etc.) or being accused of overreacting and/or
complaining. The reported feelings and responses associated with perceived racial/ethnic
discrimination can increase cortisol stress levels and heighten physiological stress response to
deal with the discriminatory event. Participants also describe ruminating about the event, how
they should have reacted as well as anticipating future discriminatory events and trying to
prepare for it. This experience is mentally draining. Constantly anticipating for the event of an
“attack” places body in a flight or fight response to deal with the discriminatory threat and
further produces an allostatic load of stress that can lead to chronic stress due to an accumulation
of chronic vigilance. In addition, experiencing racial/discrimination throughout one’s life and
reacting mentally, physiologically and emotionally takes a heavy toll on body.

The impacts of discrimination may be mediated by the coping strategies and support
participants reported. If participants felt they had adequate support to deal with discrimination
(through social support, campus resources or other resources), they were most likely to utilize
those sources to deal with discrimination

Across all participants, interviews suggested that the university is not doing enough to
support students in terms of inclusivity and creating a welcoming environment. Common threads
included lack of inclusivity and diversity efforts. Of note, the university from which students
were recruited has identified itself as an anti-racist university and one that works towards
practicing and upholding policies that promote inclusivity, equity and diversity. However,
findings from the present study suggest that these efforts may not be sufficient to ensure all
students feel included and respected. Also of note is that participants in the study were not
always aware of the university’s stance on diversity, equity and inclusion, and did not know what
that encompassed, what the goals were, and/or how it was implemented. Participants suggested
several ways in which the university could improve upon its current work in order to make them
feel more supported. Recommendations included recruitment of person of color staff/faculty, students, and mentors, mandatory racial bias and sensitivity training across all departments, diverse, and inclusive curriculum, financial support for students of color, and clear, concise goals of diversity, inclusivity and equity across the university as a whole, as well as within each School/Departments including the implementation of assessment and performance measures.

**Limitations**

The in-depth interviews provided very rich body of qualitative data and a better understanding of the topic from the perspective of the participants. Additionally, participants were extremely responsive throughout the interviews and provided great insight. The rapport built between the interviewer and interviewees was strong which made for a positive interview experience and engagement. However, results can be subject to bias. Data does not capture the influence of intersecting identities such as being a Black women and/or Black Muslim Women. Reported stress and/or perceived racial/ethnic discrimination may be higher which would be interesting to capture in future research. In addition, findings are difficult to generalize, research includes the experiences and perspectives of only 17 Black graduate students, which may not be reflective of all black students on campus. 88% of the participants identified as women, the lack of men in the study may influence findings as well depending on if the male perception and/or experiences of perceived/racial discrimination differ than female. However, given the demographic of the college environment, women tend to outnumber men in educational institutions.

Furthermore, selection bias may influence the results in that students were predominantly from two departments within the university (the School of Public Health and School of Social Work). Results may differ or reported perceived racial/ethnic discrimination and stress may be
higher at departments with less students of color or departments that do not necessarily include curriculum on topics of race, racism, bias or health (i.e Department of Bioengineering).

Most importantly, we updated the interview guide after conducting 14 interviews to more fully explore ways in which experiences of discrimination influence chronic stress. (updated guide in Appendix E). This may have limited the depth of our findings in the first 14 interviews.

**Implications/Recommendation**

Further mixed-method research is needed to more fully explore pathways via which discrimination experienced by black/African-American graduate students translate into chronic stress in order to inform and shape decisions on effective interventions/programs that could reduce the substantial burden of racial/ethnic discrimination on graduate students of color. However, a very large body of evidence exists supporting a link between discrimination and chronic stress, and findings from this study support and expand this body of literature. Graduate institutions should consider substantial investment in policies that target structural, institutional discrimination and racism and think about dismantling policies and disenfranchising systems that have contributed to and continue perpetuate discrimination and racism.

Simultaneously, institutions need to increase mental health services and social support on campus to assist students to help mitigate stress and build strategies to counteract it. By implementing these strategies and key elements, educational institutions can build a more welcoming, safe and supportive environment for all students and ultimately combat downstream results of racism and discrimination.
References


Appendices

Appendix A.) Sample Email Sent to Department/Schools

Hi,

I am currently working on my qualitative research study for my thesis and was wondering if you would be able to send an email out to graduates at the Department of Health Sciences in regards to my study. I’m interested in interviewing students to gain information on racial/ethnic discrimination and its impact on chronic stress. Below is a detailed blurb about my research study, flyer as well my contact information. Please let me know if this would be possible or if you have any questions. Thank you so much!

My name is Fathiya Abdi, I am a 2nd year, Masters in Public Health student at the University of Washington. I am currently working on my thesis in which I hope to conduct a qualitative research study that hopes to explore the relationship between racial/ethnic discrimination that occurs in an educational institution and variables associated with chronic stress such as barriers encountered in academic settings, sense of belonging, coping strategies to mitigate stress and social support.

I am seeking perspectives and experiences of individuals who self-identify as Black or African American graduate students to conduct a qualitative semi-structured individual interview. The purpose of the interview is to gain insight, perspectives, opinions, knowledge and beliefs from students in regards to the relationship of racial/ethnic discrimination and its impact on chronic stress.

If you have any questions or are interested in taking part, please contact Fathiya Abdi at fabdi@uw.edu
Appendix B.) Outreach Material

Qualitative Research Study

Do you identify as BLACK or AFRICAN AMERICAN?
Are you a GRADUATE STUDENT at UW?
Have you experienced RACIAL/ETHNIC DISCRIMINATION?

Participate in a study to explore the relationship between racial/ethnic discrimination that occurs in an educational setting. We hope to gain insight, perspectives, opinions, knowledge, beliefs from students in regards to the relationship of racial/ethnic discrimination and its impact on student's chronic stress.

If you have any questions or are interested, please email FABDI@uw.edu
Appendix C.) Demographic Questionnaire

Please take a moment to answer the questions below:

1) What race do you self-identify with?
2) What ethnicity do you self-identify with?
3) What gender do you identify with?
4) Age?
5) What program/degree are you working towards? (Master’s, Doctoral…etc)
6) What is your School or Department of study?
7) Where are you from? (i.e rural, urban, metropolitan area, international…etc)
8) Briefly, could you please tell me a bit about yourself? (2-4 sentences.)

Appendix D.) Semi-Structured Interview Questions:

OPENING:

Hi!

Thank you for taking the time to talk with me today. I am a Masters in Public Health graduate student currently at the University of Washington working on my thesis. Data gained will be utilized for a qualitative research project I am conducting for my thesis. The purpose of this interview is to gain insight, perspectives, opinions, knowledge, beliefs from students in regards to the relationship of racial/ethnic discrimination to stress within an academic setting.

Any information you may choose to share with me is only for academic purposes and will be kept strictly confidential. This is completely voluntary. I can stop the interview at any time you feel necessary.

I will be collecting basic demographic information, but will not be collecting any personal or identifying information. Should any identifying information come up through the course of the interview, I will erase it.
May I audio record this? (Please check box)

Yes
No

Please note that your responses to these questions will be audio-recorded for transcription purposes only, and will then be immediately erased. Any identifying information in the transcript will be erased so that no one will be able to identify you.

Questions

1. How do you racially/ethnically define yourself?
2. Have you ever experienced racial discrimination due to your race?
   1. If so, could you tell me about the incident.
   2. Where did it occur, under what circumstances?
3. Have you had a negative or uncomfortable experience with someone at University of Washington due to your race? (i.e microaggression, biases, judgement, treated unfairly)?
   1. If so, can you tell me about the incident.
   2. Was it a faculty, student or staff member?
   3. How did you react?
4. Have you experienced racial/ethnic discrimination in an educational/academic setting (i.e classroom, campus, dorm, athletic game)?
   1. Where did you experience it?
   2. Under what circumstances?
   3. How did it make you feel?
5. Can you describe your emotional/mental response when faced with the discriminatory scenario?
   1. How did you feel?
6. Do you utilize any coping strategies to mitigate emotional/mental responses?
   1. If so, what are those coping strategies?
7. Do you feel you have adequate support to deal with discrimination?
   1. If so, can you explain what kind of support you have?
   2. Where do you receive support from? (i.e personal life from friends/family, on campus, resources online...etc)
8. Do you feel University of Washington’s current practices and policies in regards to inclusivity support you as student?
   1. If so how, why?
   2. If not, why?
9. Do you have any recommendations for University of Washington? (i.e mandatory racial bias trainings for faculty/staff...etc)
   1. If so, what are those recommendations?

E. Updated Semi-Structured Interview Guide

1. How do you racially/ethnically define yourself?
2. Have you ever experienced racial discrimination due to your race?
1. If so, could you tell me about the incident.
2. Where did it occur, under what circumstances?
3. Have you had a negative or uncomfortable experience with someone at University of Washington due to your race? (i.e microaggression, biases, judgement, treated unfairly)?
   1. if so, can you tell me about the incident.
   2. Was it a faculty, student or staff member?
   3. How did you react?
4. Have you experienced racial/ethnic discrimination in an educational/academic setting (i.e classroom, campus, dorm, athletic game)?
   1. Where did you experience it?
   2. Under what circumstances?
   3. How did it make you feel?
5. Can you describe your emotional/mental response when faced with the discriminatory scenario?
   1. How did you feel?
6. How would you describe your health?
7. How do you think the experiences you just described contribute to your health?
8. Do you utilize any coping strategies to mitigate emotional/mental responses?
   1. If so, what are those coping strategies?
9. Do you feel you have adequate support to deal with discrimination?
   1. If so, can you explain what kind of support you have?
   2. Where do you receive support from? (i.e personal life from friends/family, on campus, resources online...etc)
10. Do you feel University of Washington’s current practices and policies in regards to inclusivity support you as student?
   1. If so how, why?
   2. if not, why?
11. Do you have any recommendations for University of Washington? (i.e mandatory racial bias trainings for faculty/staff...etc)
   1. If so, what are those recommendations?

F. Codebook

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Racial/Ethnic Discrimination:</td>
<td>Micro-aggression: verbal, non-verbal,</td>
<td>“…there were times like sort of right outside campus um...police cars would slow down and sort of walk alongside me or drive alongside me while I was walking”</td>
</tr>
<tr>
<td>Student’s express unfavorable treatment</td>
<td>behavioral, or environmental indignities,</td>
<td></td>
</tr>
<tr>
<td>and/or ethnicity</td>
<td>whether intentional or unintentional, that</td>
<td></td>
</tr>
<tr>
<td></td>
<td>communicate hostile, derogatory, or negative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>racial slights and insults towards student</td>
<td></td>
</tr>
<tr>
<td></td>
<td>due to race</td>
<td></td>
</tr>
</tbody>
</table>
**Personal prejudice:**
Participant feels individuals hold negative attitudes and judgement towards their membership of social group.

**Stereotype Threat:**
Participant is aware of negative stereotypes that society has placed on racial/ethnic group and may hold feelings of stereotype threat and are afraid to conform (ex/ angry black women)

**Sense of Belonging:**
Personal involvement with a group and the value of feeling accepted; feelings of “other”

**Implicit Bias:**
Attitudes, beliefs or stereotypes that affect understanding, actions, decisions at the unconscious level

**Explicit bias:**
Attitude, beliefs or stereotypes that affect understanding, actions, decisions at the conscious level

“I was taking an English course and (laughs) the professor kind of asks me to read a prompt off the board. I read the prompt, cause you know I can read! Um...and his initial response was, “Wow, you read very well for a Black girl”.”

“I can be labeled as somebody who was complaining”

“I thrive in group projects cause I like interacting with people, but this group project I literally don’t speak. At all. Like maybe like, the whole hour I’ll like maybe say one or two things just because I feel like I have to. But, its not like a welcoming space where I can freely share my thoughts. And it’s unfortunate because I feel like I’ll bring a lot of valuable like things to the table, but I just don’t feel comfortable right now.”

“I’ve experienced some from instructors as well, being maybe the only Black person in the space. Um... also directed from whoever is teaching the course, the expectation of a stereotype I’m supposed to define for them.”

“...like during the beginning of my time there she was...”
**Environment:**
Participant’s description of environment/context in perceived racial/ethnic discrimination occurred

<table>
<thead>
<tr>
<th>Classroom</th>
<th>Classroom – UW campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>On campus (not inside classroom; not on campus – (ex: Elementary school))</td>
<td></td>
</tr>
<tr>
<td>On UW campus (not inside classroom (ex/ football game, dorm))</td>
<td></td>
</tr>
<tr>
<td>Off-campus (ex/ work place setting, at a grocery store)</td>
<td></td>
</tr>
</tbody>
</table>

**Physiological Response:**
Participant’s express body reaction to discrimination

| Body temperature: elevated body temperature (ex/ feeling heated) |
| Shaking |
| Heart racing |
| Sweating |

**Body Temperature:** I was pissed! I honestly (takes deep breath) I’ll be vulnerable saying, I broke down. I had a hat on, thank god! Because I had to put my head down cause I was crying and I didn’t understand how upset I was, until I started crying and getting really hot and red.

“Definitely the feeling again of this like intensivity in the body, like heat. Its me figuring out how do address this?”

“Typically with me I have to really think about it. But, it typically starts like in my
face, in my head and like it goes down. Yeah to like my neck and throat, my hands might feel a bit dry so like I’ll tend to rub them to like simulate life back into them. So, its like not always a full body, but it's really central like in my head and neck area and sometimes the extremities like my hands.”

Heart Racing/ shaking: “I know that if I hear something, I don’t know if I should respond…my heart will race… my voice will tremble.”

<table>
<thead>
<tr>
<th>Emotional Response:</th>
<th>Anger</th>
<th>“Um…it doesn’t always last long but like an angry, like uh an anger that is such a entrenched reality that I myself and my community have no reason to still have to be responding to and dealing with. So it's an anger of history and a place in time and not just in that moment um….yeah.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants express emotional reaction to discrimination</td>
<td>Shock</td>
<td>“I close off. I kind of, my responses I-- I get really shocked and I get quiet. Um...I -- I...that's just kind of how I respond when I get really angry with people. I think I get really quiet and I don’t say anything cuz I think I need to sort of figure out ....my responses.”</td>
</tr>
<tr>
<td></td>
<td>Sadness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Embarrassed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crying</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disappointed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dismissed</td>
<td></td>
</tr>
<tr>
<td>Suppression: participants suppress emotions associated with discriminatory scenario</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Response:</td>
<td>Dwelling: participants express dwelling, thinking over and over again on what happened and what they should of been done</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Participants describe mental response from the impact of discrimination (thought; processing information)</td>
<td>Stress: describe feelings of stress due to discriminatory scenario</td>
<td></td>
</tr>
</tbody>
</table>

Uncomfortable:
Participant expresses feeling uncomfortable, un-easiness

“...not a willingness to listen to you and try to help you um...or -- or people heard what I was saying um...but it wasn't necessarily validated. Um...they didn’t really seem to care”

“It actually like - really- like it ruins my mood. And I-I shouldn’t like - it shouldn’t ruin my mood, but it really does.”

“Umm...I wanna say half the time I’ll speak out on it and the other half, I won't. I’ll just let it pass... umm and than ruminate think about it for the rest of the day like, “oh I should have said something! Or I can’t believe that happened!”

“I was uh sitting with that anger and like that energy of wanting to confront her and like talk about - kind of address the situation so she understands how her actions and implications of her actions um impact it has on people of color.”

Dwelling: “I think I sat there for a good like 10 minutes, just thinking like okay. I -- I didn’t respond. I literally said nothing. I-I think just toying in my head like okay I was being honest with myself like okay girl what you about to do? Because I know how I feel and I know the way he
**Anticipating:** participants describe feelings of anticipation being a target of discrimination.

**Anxiety:** participants describe feelings of anxiousness, worry, unease due to discriminatory scenario.

**Hopelessness:** participants describe feelings of despair or lack of hope.

**Powerless:** participants describe feeling lack of ability, influence or power in discriminatory situation; feelings of vulnerability.

**Doubt:** describe feelings of uncertainty or unsureness in regards to discrimination.

**Exhaustion:** Participants describe feelings of physical and/or mental fatigue due to discrimination.

just made me feel, wasn’t right. I know what he said wasn’t right. And I felt super uncomfortable and I’m like okay what are you going to do? Are you going to sit here and approach the professor after class? But I was just like emotionally that might not go over well. So, I literally packed my stuff up and walked out and I never went back.”

“So I think the walking away is definitely -- it makes it linger even more because I didn’t address it and it like -- I’m over analyzing. I’m thinking about it all damn day!”

**Stress:** “I think that does add a level of --of stress in a way because then I think...I have to worry about um...going further or being occupying that space further and just sort of how am I going to interact with this person again? how are -- how are my actions seen?”

**Anticipation:** “I noticed that I use to not pay attention as much to racial discrimination and maybe like when it comes around directly. Umm...I noticed more of it here. Because I’ve just become like hyper aware of everything and how like subtle it can be, which makes me super like zoned in and focused on it”
**Anxiousness:** “...so I had my laptop out and I was typing and I saw many people who don’t look like me walking around and I was thinking, “oh no” and like many people who worked there you know, would one of them come up to me and be like, “Excuse me, are you supposed to be here?””

**Powerless:** “Sometimes it feels like the fight is bigger than me so I can’t -- I can’t battle it all at once.”

**Doubt:** “like you don’t really... know for sure whether it is and you start to question like, “oh maybe it isn’t, or maybe I’m just going crazy.” So, it's been like so many incidents that are incidents like that have been so subtle but...I’m pretty sure like the racial aspect is really there. So, I’m like becoming paranoid (laughs) ”

**Hopefulness/Powerless:** “honestly I didn’t want them to know that like you know...as a Black women they think I’m so strong and don’t having feelings. And honestly, I want to keep that up. I want to keep that demeanor up. I am not like -- I don’t want them to see me vulnerable because I feel like they’re winning. I don’t want them to see that they're making me feel bad or making me cry
<table>
<thead>
<tr>
<th>Coping Strategies:</th>
<th>Seeking social support through friends and family due to discrimination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants describe strategies (thoughts or actions) utilized to mitigate emotional and mental responses of discriminatory scenario</td>
<td>Engaging in activities (journaling, exercise, arts and crafts...etc)</td>
</tr>
<tr>
<td></td>
<td>Seeking professional help (therapy, counseling) due to discrimination</td>
</tr>
<tr>
<td></td>
<td>Campus Resources: participants express utilizing campus resources such as seeking campus organizations they perceive a sense of belonging (ex/ Graduate Opportunities and Minority Achievement Program (GO-MAP), QCenter)</td>
</tr>
<tr>
<td></td>
<td>Validation: participants providing self-validation, recognition of feelings and positive affirmation</td>
</tr>
<tr>
<td></td>
<td>Substances: participants express utilizing substances</td>
</tr>
</tbody>
</table>

| Seeking Social Support: “...I have amazing friends. So definitely being able to have these conversations with them uh...constantly and you know try to figure out (laughs) how to handle all these situations that I’m experiencing has definitely helped” |

| Engaging in Activities: “Um...just you know writing down my daily feelings and especially after experiencing things like that. Um...just writing my thoughts down and kind of like reflecting what happened and...how I responded, how I should have responded and you know what I could do moving forward.” |

| Seeking Professional Help / Campus Resources: “Therapy. (laughs). Counseling. It's really the only thing...that I also have time for like I would actually say GO-MAP too is like uh...I...” |

| Exhustion: “I’ve been so like messed up from it that I haven’t been able to like go work out or go like you know do things I normally like to do, which then piles up into to like hurting my emotional state hurting my mental state” |
such as antidepressants, drinking, marijuana...etc

guess a -- they’re definitely a sense of community.”

Validation: “…its not worth getting upset over or like ruining your experience with the program just because like I don’t like the people in the program. It's not like their gonna leave cause I don’t like them, so I need to just get over it.”

Substances: 
I smoke like a little weed

Social Support: 
Participants express perception of social support (whether they feel they have adequate support and/or quality support or not) and where they receive it

Family/Friends
On-campus resources
Other forms of support (online, not family/friends, not on-campus…etc)

Family/Friends: Um… yeah I definitely feel the friend groups and the peers that I’ve connected with are just a great deal of support, they are.

“…we have our venting sessions um… if something happens and I have some time I may shoot someone a text message like this is what just happened. Can you believe that? What do you think I should do or say? Um…so really utilizing other black people for support is a source of coping”

On-campus resources: “I’m pretty grateful too that I have like a couple of mentors that are like um part of the program like one of them is part of the program and one of them is just like a um… they’re both in (name of my department). They’re both
very supportive people too like when I kind of talk about my concerns and their like, “you know... you shouldn’t be feeling like that, like there’s things that can be done, like you just have to be able to speak up about it”. And it’s like their very supportive like the words of affirmation I guess, like they kind of like affirm that you know, deserve to be there, you’re brilliant, blah blah blah”

“I still like feel isolated at times and still feeling like you don’t (pause) have people that understand um...how you are thinking, how you’re feeling about a lot of things”

<table>
<thead>
<tr>
<th>Recommendations:</th>
<th>Institutional Support: providing institutional support (ex/ providing funding, practicing inclusive, equitable and diverse policies set in place to support students, adequate mentorships)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants describe recommendations for the University of Washington and/or areas in which UW is lacking and can improve on</td>
<td>Institutional Support: “...for me it all starts up at the federal level with funding for these public institutions like they would probably be able to accept more students (of color) or like be willing to --let’s say they accept these students right but these students don’t enroll or don’t stay all four years because they can’t pay, who’s fault is that? “... You gotta make sure you gotta understand you’re not just accepting the student, you’re accepting everything else that happens to the student beforehand so.”</td>
</tr>
<tr>
<td>Diversity: increase diversity on campus - faculty and students of color, changes in curriculum</td>
<td>“I think we just need to have as many Black leaders as we...”</td>
</tr>
<tr>
<td>Inclusion: participants express increasing inclusivity such as creating inclusive spaces, increasing accessibility, and increasing support in classroom discussion for students of color,</td>
<td></td>
</tr>
</tbody>
</table>
representation on campus; sense of belonging

*Trainings and/or workshops:* trainings include racial bias, sensitivity training...etc. Includes any form of teaching material

can and someway, somehow, coming in through the university and mentoring these kids from their freshman year and so on”

*Inclusion:* “um yeah just bring in anti-oppressive, non-eurocentric ways of being that are really important particularly if you want to make students of color feel or allow them, us to feel more included, making sure the curriculum is a reflection of who we are and our contribution to academia.”

“...truly practicing what they preach in the classroom by kind of making the course work and the curriculum more inclusive of voices that aren’t truly kind of like I feel represented in academia.”

*Diversity:* “I think other recommendations of course recruiting more faculty of color.”

*Diversity:* “I think they should have more representation on admission committees like especially for graduate programs cause I know it’s not that students of color don’t apply its just that students of color don’t get accepted, you know.”

*Training and/or workshops:* “...so I think that the staff and the faculty and professors...
need to all like take a sensitivity training or like um...like discrimination training or whatever you call it um...so that they can be more understanding of like what students of color goes through and like try to make classrooms more like... more balanced, more of a safer space for students of color.”