2022

Exploring The Impact Of Diversity In Medicine Through The Narratives Of Underrepresented Minoritized Medical Students

Brittany Russell
Indiana State University

EXPLORING THE IMPACT OF DIVERSITY IN MEDICINE THROUGH THE NARRATIVES OF UNDERREPRESENTED MINORITIZED MEDICAL STUDENTS

A dissertation

Presented to

The College of Graduate and Professional Studies

Department of Education Leadership

Indiana State University

Terre Haute, Indiana

In Partial Fulfillment

of the Requirements for the Degree

Education Administration- Higher Education Leadership

---

by

Brittany Russell

December 2022

Keywords: underrepresented minoritized medical student, medical education, belonging, academic medicine, critical race theory

COMMITTEE MEMBERS

Committee Chair: Kandace G. Hinton, Ph.D.

Professor, Department of Educational Leadership

Indiana State University

Committee Member: Mary F. Howard-Hamilton, Ph.D.

Professor and Chair, Department of Educational Leadership

Indiana State University

Committee Member: Khadijah Ojo, Ed.D.

Director, Pre-Health Advising

Pepperdine University

ABSTRACT

The purpose of this study was to examine the impact of diversity on underrepresented minoritized (URM) students in academic medicine through their experiences and stories. A narrative study design was implemented to capture and understand URM first-year medical students' lived experiences and to answer the following research questions: what are the experiences of underrepresented minoritized students in academic medicine, and what strategies do underrepresented minoritized medical students use to meet the academic and social challenges of medical school? Six participants were chosen using purposeful sampling and were interviewed for about an hour via Zoom. Three major emergent themes were derived from the data: barriers and obstacles, support, and advice. The data were then analyzed through critical race theory and belonging theoretical frameworks. Most study participants were aware of stereotypes or preconceived notions about who they were as students based on their URM status. Participants also believed that while their institutions released statements touting their belief in acceptance and diversity, they were mainly performative to appease the student body.

ACKNOWLEDGMENTS

Thank you to my parents, sisters, and the rest of my family for constantly encouraging me in my academic endeavors and for your continued love and support. I could not have gotten this far without any of you. I love you all so much.

Thank you to the outstanding faculty members I have encountered in this program, especially Dr. Jon Iftikar. He made learning about the challenging subject of law in higher education manageable and exciting (and strongly made me consider pursuing law school) and for contributing so many helpful articles and information to consider for my dissertation. I would also like to thank my program mentor, Dr. Elonda Ervin, for her excellent advice about the doctoral program and direction in developing my dissertation topic.

Next, I would like to thank my committee members. Dr. Mary Howard-Hamilton has enthusiastically shared her wisdom about higher education in the classroom and from whom I've learned so much. Dr. Khadijah Ojo, whom I met as an undergraduate student when starting our school's MAPS chapter, has professionally continued that same work for other underrepresented students and contributed her knowledge on the subject to my dissertation. We have come full circle! I would also like to thank my committee chair, Dr. Kandace Hinton, for her countless hours of feedback and recommendations that have steered the direction of my research and her classroom knowledge.

Lastly, I would like to thank my cohort mates who made this program experience enjoyable, even when times were challenging. I am glad to call you all colleagues. I would

especially like to thank my dissertation writing partner and friend, Dr. Heather Roberts, for her insight and for being a sounding board throughout this process. In the year of our Lord 2022, we have finally finished!

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

UNDERREPRESENTATION IN MEDICINE

Regents of the University of California v. Bakke, 438 US 265, was a landmark case decided by the United States Supreme Court in a 5-to-4 vote to invalidate the institution's admissions policy in 1974 (Kaplin & Lee, 2014). This case became critical because it has impacted the admission of minoritized students since its ruling. Allan Bakke, a White man, sued the University of California to dispute its affirmative action plan after not being granted admission to their medical school. The institution's policy reserved several spots on the class roster for minoritized students, which were considered independent of the other roster spots (Kaplin & Lee, 2014).

However, the school felt that implementing this plan was reasonable because there was a need to diversify the student population and for doctors to work in underserved communities (Kaplin & Lee, 2014). A diverse student population is vital because it allows students of various ethnic and racial backgrounds to contribute differing ideas to conversations. Moreover, underrepresented minoritized (URM) students are more likely to deliver healthcare to traditionally underserved areas (Association of American Medical Colleges [AAMC], 2010). Nevertheless, URM students make up less than 12% of students enrolled in United States MD-granting schools and about 13% of practicing physicians in the United States (AAMC, 2019).

Historically, diversity dialogue has concentrated on ethnicity and race in the United States, especially in higher education. However, the definition has continued to evolve to include other demographics. The Association of American Medical Colleges (AAMC) (n.d.-b) adopted an expanded URM definition to mean "those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population" (p. 3). The previous definition specified four groups as "historically underrepresented": African Americans, Mexican Americans, Native Americans, and mainland Puerto Ricans (AAMC, n.d.-b, p. 5).

Problem Statement

Medical schools today face the challenge of seeking ways to diversify their student body without using race as a deciding factor. As such, they have found other metrics to fulfill this task. The AAMC (n.d.-a) has called for an increase in physician diversity and has created a framework for schools to achieve this goal. The Holistic Review Project was developed for medical school admissions committees to cultivate sustainable diversity at their schools. The project views diversity as a multi-layered model; as such, the holistic review is a "flexible, individualized way of assessing an applicant's capabilities by which balanced consideration is given to experiences, attributes, and academic metrics (E-A-M) and, when considered in combination, how the individual might contribute value as a medical student and future physician" (AAMC, 2013, p. ix). This review signifies that schools are considering prospective students through a more wide-ranging scope while not solely relying upon traditional metrics such as grade point average (GPA) and Medical College Admission Test (MCAT) scores.

Research has supported the diversification of medical schools (Saha et al., 2008; Whitla et al., 2003). Students have reported that diversity greatly enhanced their medical school

experience, and they felt confident about treating patients of different racial and ethnic backgrounds. They have looked to faculty and peers to gain cultural awareness due to a lack of cultural competence in their medical curriculum, which is also why faculty representation is essential. Further, a diverse physician labor force would help tackle ethnic, racial, and socioeconomic inequalities in the quality of healthcare, healthcare status, and healthcare research of these populations (AAMC, 2010). Finally, prospective students may preferentially choose schools that reflect more diverse student populations, making them partners in solving these dilemmas.

Despite using other metrics, URM student enrollment in medical schools is still low. Given the low percentages, further examination is warranted. This is especially true for the experiences of URM medical students.

Purpose of the Study

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. Academic medicine is defined in this study as encompassing the first two years of medical school. Their narratives were then analyzed to understand their choices and strategies to navigate medical school.

Research Questions

There are two primary research questions for this study. First, what are the experiences of underrepresented minoritized students in academic medicine? The second is what strategies underrepresented minoritized medical students use to meet medical school's academic and social challenges.

Significance of the Study

This study is significant because medicine is a highly homogeneous field that needs to diversify to provide quality care to different populations (Aagaard & Hauer, 2003). This homogeneity means that specific demographics are being left out of the profession and are not adequately represented. Additionally, this study will add to the literature, as there is a shortage of qualitative, first-hand accounts of URM medical students' experiences. From that, this study will propose recommendations from those first-hand accounts to medical schools that may contribute to advancing a physician workforce that reflects the U.S. population. Diversifying healthcare at both the level of education and practice is vital to eliminating healthcare disparities unequally experienced by racial and ethnic groups (Page et al., 2013).

Personal Statement

I will briefly describe my background to provide readers with insight into my experiences and positionality. I earned my Bachelor of Science degree and Master of Science degree in Nutrition Science from Indiana University. When I was younger, I intended to become a physician to help people in the way my youngest sister and family were helped during her health issues as a baby. As a result, I declared my major as pre-med as an undergraduate student.

However, I found it challenging to find others who looked like me and to find peer support. Ultimately, a mentor connected me with other students, and we established a club called Minority Association for Premedical Students (IU-MAPS) for minoritized students. In this club, we put together programs outlining the application process for medical school, MCAT study tips, and created volunteer opportunities. During this time, I received my Emergency Medical Technician-Basic certification to gain hands-on experience with patients.

Eventually, I decided medicine was not for me after witnessing a patient's death in a motor vehicle collision. After this realization, I began the next phase of my career working in academic medicine as a Basic Sciences Program Coordinator at a medical school. I have thoroughly enjoyed working with students in this capacity. I hope to gain more knowledge from my research so that I may apply it to improve upon URM student experiences in the future.

CHAPTER 2

LITERATURE REVIEW

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. In this chapter, I will provide a historical overview of academic medicine in the U.S. and its relation to diversity today. I also define diversity, describe its role in academic medicine, and explain the benefits of a diverse student body. Further, I describe student and faculty perceptions of diverse environments or environments lacking diversity. Lastly, I will explain what dynamic diversity is and how institutions can achieve it, followed by critiques of diversity. The chapter will end with descriptions of the use of critical race theory and belongingness as theoretical frameworks.

Historical Overview

The U.S. Supreme Court's decision in Plessy v. Ferguson, 163 U.S. 537, in 1896 provided the legal foundation for racial segregation as long as the separate facilities were equal (Kaplin & Lee, 2014). The history of segregation in the U.S. has had a lasting effect on ethnic and racial diversity in medical schools. Throughout the history of academic medicine, advocates have called for the end of segregation, discrimination, and eliminating disparities in healthcare (Steinecke & Terrell, 2010).

Steineke and Terrell (2010) report that there have been significant increases in the number of Black physicians to graduate from U.S. medical schools. However, that upward trend

has recently stagnated to a seven percent total of U.S. graduates while the Black U.S. population is almost double that figure (Steinecke & Terrell, 2010). The authors state that the proportion of Black physicians to the Black U.S. population is now lower than in the early 1900s. It is essential, especially with dramatically changing demographics in the country, to address and be critical of the past to make effective changes for the future.

In 1909, the Carnegie Foundation for the Advancement of Teaching commissioned Abraham Flexner, an educator, to write about the status of medical education at that time (Ludmerer, 2010). Flexner traveled to 155 schools in the U.S. to describe the differences in medical education he encountered (Steinecke & Terrell, 2010). The report is widely credited for elevating the quality of U.S. medical schools and compelling various for-profit institutions to close. Before the report's publication, several medical schools were owned by a small faculty and operated the institution for profit. Ludmerer (2010) explained that there were no entrance exams, and the courses were "superficial and brief" (p. 193).

However, at the time Flexner was writing this report, Steinecke and Terrell (2010) explained that:

> Inequalities in access to and quality of health care were extreme for African Americans. Apart from charity hospitals and those established by the Freedman's Bureau, access to modern health care did not exist. In large part, the relative proliferation of for-profit medical education for African Americans was directed at this need. However, for Flexner, who championed the closing of all for-profit medical schools as essential for improving the overall quality of medical education, standards for the benefit of the majority trumped nuanced strategies for the benefit of African Americans. Again, African Americans would be left to bear the weight of inequity. (p. 237)

It is unclear if this was Flexner's intent; however, the report's recommendations led to five of the seven predominately Black medical schools closing. These closures did not leave many options for prospective Black students to pursue medical degrees in the U.S., especially during legal segregation. Flexner (1910/1972) went on to state that the remaining two schools, Howard University College of Medicine and Meharry Medical College, both still open today, were "of course, unequal to the need and the opportunity" (p. 181) in relation to predominately White medical schools for White students. Yet, Steinecke and Terrell (2010) went on to state that "neither the Flexner Report, nor the AMA [American Medical Association], nor the AAMC provided plans to help these schools to achieve independent economic viability" (p. 238).

It is also important to note that medical education at predominately White schools "flourished with unprecedented innovation and growth" (Steinecke & Terrell, 2010, p. 239), while Howard and Meharry struggled to keep their doors open during this time. Additionally, Black "physicians were barred from membership in professional societies and were denied opportunities to continue learning and assuming leadership positions" (p. 239). These acts of exclusion mean that faculty members at medical institutions were and remained White and "became the standard by which quality and prestige were measured" (p. 239).

Authors noted that the decline in the number of Black physicians was not solely the responsibility of Flexner (Ludmerer, 2010; Steinecke & Terrell, 2010) but rather a combination of medical institutions employing social norms that developed over time that had not been challenged. With the closure of several medical schools after the release of the Flexner Report, admission to medical schools became highly competitive and selective. This selectivity maintains oppressive and racist policies and practices within the medical field, which continues to exclude Black people.

Diversity and its Benefits

Expanding the Definition of URM

Page et al. (2013) recounted that definitions for diversity have historically focused on ethnicity and race. However, with the growing multiethnic and multiracial makeup of the U.S. population, updates were needed to reflect these changes better. The AAMC (n.d.-b) recognized this need and expanded the definition of URM to include any ethnic and racial population underrepresented in the physician labor force comparative to the general population. This was even more essential when the Liaison Committee on Medical Education, the accrediting body for MD-granting medical schools in the U.S. and Canada, bolstered essential accreditation standards focused on diversity and inclusion (Page et al., 2013).

In a study assessing the evolution of the meaning of URM and its use in medicine, Page et al. (2013) found that the definition used by academic health centers ultimately promotes a healthcare labor force that mirrors the U.S. population because it is wide-ranging. This inclusivity is especially true regarding "socioeconomic status, gender, age, sexual orientation, disability, and nationality" (Page et al., 2013, p. 67). This expansion is vital in eliminating health disparities related to "communities in poverty, racial and ethnic minorities, and gay, lesbian," and transgender populations (Page et al., 2013, p. 67). Additionally, the flexibility in defining diversity allows health centers to develop programs that may address healthcare disparities.

The Benefits of Diversity

Page et al. (2013) also expressed that diverse learning environments are beneficial in several ways. Specifically, diverse academic environments are connected with students' improved comfort with diversity and connected with a heightened appreciation for its importance. The importance is its influence on students' academic experience and the access to

and distribution of healthcare. Additionally, students notice that greater ethnic and racial mixture "acts as a catalyst for in-depth discussions" from different viewpoints and expands comprehension of medical ailments and treatments (Page et al., 2013, p. 67).

Integrating diversity into academic medical programs is also an essential part of the medical field. A study on the benefits of diversity in medical institutions found that students reported that diversity greatly enhanced their medical school experience (Whitla et al., 2003). They subsequently felt confident about caring for patients of another ethnic or racial background. These students looked to faculty and peers to gain cultural awareness due to a lack of cultural competence in the curriculum. Thus, faculty representation is equally important. Additionally, "diversity among students clearly improves the breadth of class discussion" (a significant educational benefit) and serves as a "basis for learning culturally competent" healthcare (Whitla et al., 2003, p. 465).

Additional research demonstrated that increased diversity was linked to "enhanced critical thinking ability, openness to diversity and challenge, and racial and cultural awareness" (Saha et al., 2008, p. 1142). Specifically, White students at more diverse schools believed they were better equipped to serve diverse populations. Further, White students were found to have had more equity-oriented viewpoints around access to healthcare. The authors also found that organizational diversity, and diversity-focused classes, events, and workshops on campuses work cooperatively to improve educational outcomes (Saha et al., 2008).

Students' experiences from diverse academic settings will influence their subsequent training as residents and practicing physicians (Thomas & Dockter, 2019). Students from minoritized groups will bring their experiences and perspectives to impact their peers and their future patients positively. "A culturally prepared health care workforce is more able to provide

care" that will ultimately reduce healthcare disparities and improve the overall health of the population (Thomas & Dockter, 2019, p. 473).

Perceptions of Underrepresented Students and Faculty

Students

Hadinger (2017) set out to address the gap in the literature by examining why URM students apply to medical school and the influences that impact their admissions encounters. This study used a grounded theory approach to develop a set of concepts to explain this social phenomenon. The data source was gathered by interviewing 33 self-identified URM undergraduate students solicited from national student medical interest groups who spoke about their experiences during the admissions process.

There were two emergent themes: motivations for a career in medicine and barriers and supports (Hadinger, 2017). Briefly, regarding motives, one study participant cited the work of an aunt who was a nurse. On several occasions, this participant witnessed her aunt caring for other family members and members of their church community. Other study members perceived the benefits (e.g., job security) of becoming a physician as very influential.

In terms of barriers and supports, there were several factors discussed (Hadinger, 2017). Although several participants described the medical school process as straight forward, many stated that it was confusing and overwhelming, not to mention expensive. One study member commented on how taxing the MCAT process was:

> Getting through the MCAT and all that was hard and extremely expensive. You have to register for MCAT, preparation for MCAT class, getting books and materials and having to pay for it all. . . . I think probably the most challenging thing for me was the whole application process with all the letters of recommendation. It was a tough process for me.

> . . . I did not know with my scores if I could get into a top program. I did not know which schools were better. All these things were completely difficult and overwhelming. (Hadinger, 2017, p. 35)

Many study members cited advisors, mentors, and peers contributing to their successful matriculation.

However, students without these resources found the process complicated (Hadinger, 2017). Specifically, there were misunderstandings regarding components of the process: application expense, financial aid availability, differences between schools' and applicants' ideal traits, and school resources. In this respect, these students felt severely disadvantaged compared to their peers. Some students also cited advisors as being unhelpful and cited incidents of racism during their interactions. Additionally, students without mentors stated that they felt along during the process.

Study members also reported financial struggles that may have hindered their application process (Hadinger, 2017). There are fees for applications, which include several iterations, as many schools require students to submit secondary applications. These hardships led to several participants limiting the number of secondary applications sent to the school. Also, several students cited travel expenses related to interviews as barriers to medical school admittance. Study members had to decide which interviews they would attend, which may have contributed to low admission rates.

The association between "student perceptions of having learned from others who are different" from them and ethnic and racial diversity is strong, especially for URM students (Morrison & Grbic, 2015, p. 937). That is, learning from students from dissimilar backgrounds is a great benefit. Research from Morrison and Grbic (2015) showed that ethnic and racial diversity

is integral to diversity and enables institutions to prepare future physicians with cultural competencies to care for diverse patient populations. A similar study on student perceptions of diversity found that how students interact with medical school stressors (e.g., grading policies and administrative support) might be connected to how they perceive their learning environment (Skochelak et al., 2016).

With an emphasis on learning environments, many URM students have reported that they have experienced less supportive social environments than their non-URM peers. According to Orom et al. (2013), "URM students were more likely than White students to report having trouble establishing both peer support networks and good peer working relationships" (p. 1767). Notably, Black and Hispanic students recounted better social and emotional support than their White peers during their first year in medical school. However, these same students reported psychological and social support declines compared to their White peers.

Orom et al. (2013) also found that URM students have reported having experienced racial harassment and discrimination. Harassment was defined as ethnically or racially offensive comments targeted at the student individually. Further, URM students are "more likely to perceive that their race negatively affected their medical school experiences" (Orom et al., 2013, p. 1767).

In the same study, Orom et al. (2013) found that "being a URM student" was linked to a "lower level of satisfaction" with their learning environment than their White peers (p. 1768). Specifically, URM students were not as pleased with their performance evaluations' timeliness and their faculty's responsiveness to student concerns. Also, URM students were more prone to disagree with the amount of constructive feedback than their White peers. URM students were

less likely to agree that the institution was a hospitable environment for learning for men or women of all ethnicities and races.

Orom et al. (2013) also discovered that URM students, African American and Hispanic specifically, did not score as high as their White peers and were more likely to fail standardized tests. These students had lower GPAs and scores on courses than their White peers. These factors ultimately led to URM students experiencing graduation delays and failures more often than White students.

In a similar study, students were asked to evaluate the ethnic and racial diversity at their institution and cultural competence, as well as the overall sense of diversity at the institution (Hung et al., 2007). They were also asked to provide reasons for the underrepresentation of minoritized students at their institution. The authors found that most students appreciated the concept of diversity and felt that it improved their medical school experience. Students also felt that cultural competency was of great importance. These students also felt that their "medical school's clinical faculty" (primarily practicing physicians) "would benefit from cultural competence training" (Hung et al., 2007, p. 185). In this instance, URM students were significantly more likely to hold this view.

While students believed diversity was important, few felt this principle was adequately represented in their medical school's environment or the institution's values (Hung et al., 2007). Additionally, URM students reported having observed or experienced racial discrimination. These instances were mainly in clinical settings than in a classroom or social environment. When asked for perceived reasons for the underrepresentation of minoritized students, many believed that the absence of diversity at their institution thwarted the enlistment of minoritized students and faculty.

Because medical students provide a significant source of the faculty pipeline, many URM students have conveyed an attraction to pursuing an academic medical career (Sánchez et al., 2013). This prospect is especially vital in increasing ethnic and racial diversity. However, Sánchez et al. assert that many URM students felt challenged to pursue a career in academic medicine. Chief among them was the lack of information on this career path, as some students felt there was a secretive process, and others felt that there was a "good old boys club" that impeded the promotion process (Sánchez et al., 2013, p. 1303).

Faculty

Researchers have found that URM faculty experience feelings of isolation, which may have stemmed from communication barriers and the development of relationships with non-URM faculty, as well as a lack of diversity in general among the faculty ranks (Pololi et al., 2013). The absence of role models and familial support were also barriers. Similar findings were demonstrated in studies on faculty perceptions. Many URM faculty conveyed that they had faced ethnic or racial discrimination by colleagues or superiors at their school of employment.

Scholars also found that URM "faculty have similar levels of engagement" and self-worth to non-URM peers (Pololi et al., 2013, p. 1311). They also had higher leadership aspirations than their non-URM peers. However, these URM faculty members also shared decreased feelings of belonging, relationships, and trust, leading many to leave academic medicine. Contrary to URM students, diversity in academic medicine may be more critical to URM faculty. Researchers also found that non-URM faculty may be unaware of the importance of diversity in academic medicine.

Interestingly, Kaplan et al. (2018) found that URM faculty participants generally perceived their institutional climate as neutral to positive. It is believed there has been an

evolution over time to a less charged environment. The authors attribute this evolution to several factors: “the institution’s legacy of inclusion or exclusion, structural diversity as represented by numbers, the psychological climate, and the behavioral climate” (Kaplan et al., 2018, p. 61).

However, Kaplan et al. (2018) explained that participants cited a lack of significant ethnic and racial diversity as a barrier to URM faculty recruitment, retention, and promotion. The authors noted that with some URM faculty, often at a disproportionate rate, there is a sense of increased obligation to participate and serve on committees compared to their non-URM peers. These activities are outside of work that would lead to promotion. This increased workload causes “diversity exhaustion for our faculty members. . . when people are asked to do so much to help recruit, retain, promote, support, mentor other people who look like themselves” (Kaplan et al., 2018, p. 60).

Dynamic Diversity

What level of diversity is enough or sufficient? How do we know when the level of diversity has been reached to achieve its benefits? Garces and Jayakumar (2014) employ the term *dynamic diversity* to help answer these questions; Dynamic diversity “focuses on the interactions among students within a particular context and under appropriate environmental conditions needed to realize the educational benefits of diversity” (p. 116). Only paying attention to the numbers of minoritized students is not enough to meet the specifications needed for dynamic diversity to develop so that institutions can reap diversity’s educational benefits. Institutions also need:

> Meaningful representation of students of color in a range of institutional and educational settings to signal that diversity is valued, to ensure students of color feel welcomed, to prevent tokenism and racial isolation, to incite positive learning experiences, and to

> sustain participation and engagement. The synergy of these factors—a function of numbers and contextual factors—contributes to dynamic diversity and garner desired educational outcomes. (Garces & Jayakumar, 2014, p. 116)

The authors claimed that higher education institutions can achieve the benefits of diversity by using dynamic diversity.

Definition

Critical mass is a concept that has been used previously by institutions to achieve diversity among their student population and in legal proceedings challenging race-based admissions procedures (Garces & Jayakumar, 2014). However, it has come under scrutiny because of its difficulty in defining. Legal scholars have found:

> The concept of critical mass is necessarily contextual and requires an understanding of the conditions that are needed for meaningful interactions and participation among students, given the particular institutional and state/local environment. As such, critical mass cannot be quantified in the general sense without regard to the particular educational context within which it arises. (Garces & Jayakumar, 2014, p. 115)

Using critical mass in conjunction with race-based admissions procedures is problematic among critics because it functions as a quota system, which has been struck down in cases like Regents of the University of California v. Bakke, 438 US 265 (Kaplin & Lee, 2014). That case was brought forward to challenge the University of California admissions policy in 1974. In similar cases, universities have argued that the aim of critical mass is strictly for educational purposes for students and not set numbers of minoritized students. The goal is to have "meaningful numbers" (Garces & Jayakumar, 2014, p. 117).

To achieve dynamic diversity, Garces and Jayakumar (2014) explained that it depends on a symbiotic relationship between the environment and students; while the percentage of students of color plays a significant role in shaping the campus climate and culture, the campus climate and culture, in turn, influence whether students feel welcome to attend the institution and their experiences while on campus. Furthermore, the environment and the differential experiences are shaped by the institution's legacy of discrimination and exclusionary practices to date, organizational features such as institutional signaling about commitment to diversity, and the broader social context, which includes local demographics, levels of segregation, and local indicators of inequality. The following section will expound on the factors contributing to dynamic diversity and an institution's ability to reap the benefits.

Factors

"Dynamic diversity cannot be reduced to a number that is devoid of other contextual determinations, as numbers alone do not produce educational benefits" (Garces & Jayakumar, 2014, p. 120). Several factors will bring about academic benefits and indicate when the appropriate level of diversity has been reached. There are factors at an institutional level that must be met and factors at local and state levels.

The racial climate on campus is an essential factor, especially the experiences of minoritized students and the number of students (Hurtado et al., 2012). The racial climate elements include attitudes, behaviors, and perceptions of the students and their group interactions. Increasing the number of minoritized students alone will not give rise to academic benefits derived from diversity. However, research has demonstrated that minoritized students and a positive racial climate at that institution will make a path to the desired benefits (Jayakumar, 2008). It is also important to note that increasing the number of minoritized students

is connected to their perceptions of discrimination (Hurtado & Ruiz, 2012). That is, there is a decline in their awareness of campus discrimination. Suppose minoritized students experience a hostile racial climate on campus. In that case, they are more likely to limit their interactions with others, directly impacting an institution's ability to cultivate the academic benefits of diversity.

Another factor that will indicate when adequate levels of diversity have been reached is the institution's ability to disclose the

> historical legacies of exclusion and other contextual factors that shape racial climates on campuses. These include historical patterns regarding entrance of students of color, specific state and institutional contexts, and policies that signal whether students are welcome at a particular institution. Students' educational experiences occur within a particular racial context determined by both sociohistorical forces on campus and the larger policy context, including government programs, initiatives, and the national policy landscape. (Garces & Jayakumar, 2014, p. 118)

An institution's history will also contribute to the racial climate on campus. Their willingness to address negative instances will go a long way in positively influencing the environment, thus leading to academic benefits from diversity.

Classroom interactions are a third factor that will contribute to dynamic diversity. When there are low numbers of minoritized students as members of a student body, they are more susceptible to social stigma and threats of stereotypes (Garces & Jayakumar, 2014). These two examples contribute to their level of participation in class settings. Research has demonstrated that minoritized students who experience isolation due to decreased belongingness are not likely to participate (Deo, 2011). A frequent reaction for these students is to stop speaking in class and distance themselves from their non-URM peers, which would negatively affect their education.

When interactions among students are poor or not good, the benefits of diversity cannot be gained. Garces and Jayakumar (2014) explain:

> Relatively homogenous groups prevent these goals as they can foster stereotypes, racial isolation, and heightened perceived differences of students with backgrounds different from those who are not in the racial majority. Thus, attending to the nature, and quality, of cross-racial interactions is important and requires that groups are not lopsided in ways that promote stereotypes and racial isolation. (p. 120)

Minoritized students feel more welcome to participate in class discussions when groups are more varied with students from different backgrounds.

Hidden Curriculum of Diversity

Esposito (2011) examined the hidden curriculum within a predominately White institution (PWI) and how women of color encountered that curriculum. The scholar argued that race shapes our life experiences and that this is "true within higher education as race is a determining factor in all aspects of college life including embodiment and curriculum" (Esposito, 2011, p. 143). Esposito explained that this curriculum is implicit and differs from the official curriculum offered by the institution. The hidden curriculum is not presented by faculty in lectures or written about in textbooks but is a part of social experiences learned from other students (Eisner, 1994; Giroux & Penna, 1979). Esposito (2011) explained that "the hidden curriculum of diversity is the informal interactions and lessons students learn regarding gender, race, difference, and power" (p. 145).

To explain what the hidden curriculum appears as in practice, Esposito (2011) recounted the experiences of a study participant:

> Although the hidden curriculum of diversity illustrated to Kiesha she was not valued in her major, she persisted by creating alternative forms of support for herself – including the dismissal of her professor's skepticism of her intellectual capabilities. She also, like other participants, detailed the informal networks she created for support. The networks were comprised of mostly students of color and faculty of color who were sympathetic to microaggressions. Many of the participants believed people of color understood what they struggled with while White students and professors often acted as if racism was not a factor on campus. (p. 150)

Bonilla-Silva (2009) explained that this situation of colorblind racism reflects a system of institutionalized customs that maintain White supremacy. Esposito (2011) argued that White students

> have been able to pretend that race does not matter because in many ways they did not have to confront institutionalized racism. As a result, it becomes difficult for them to understand structural racism and they are able to deny that inequalities exist. (pp. 150-151)

When speaking about the hidden curriculum of being the only student of color in a particular educational program, Esposito (2011) and study participants explained:

> "At first it's intimidating because there is a bunch of people that look the same, and you don't." Kiesha spoke of this hyper-visibility in terms of invisibility. "You feel like an outsider. Like, just because we're so small in comparison to the amount of other White people that go here, at first you feel like sometimes they forget that we even exist." This was part of the hidden curriculum about race [the study participants] learned. Regardless of what the people of Upstate intended, Kiesha felt marginalized. (pp. 153-154)

Esposito (2011) went on to state that the institution was teaching more than they advertised to prospective students:

> The small number of students of color (structural diversity) was an indication of who was actually more valued by the institution. Upstate might have had many programs aimed at recruiting and retaining students of color to make the institution more diverse, but what seemed relevant to Kiesha and Angie was that they felt like outsiders. It is this perception that informed what they learned about race, racism, and higher education; the hidden curriculum of diversity. (p. 154)

Another point learned from this hidden curriculum is that the participants were often put in the position of educating their White peers about their cultural differences and representing their race positively. Esposito argued that the hidden curriculum of diversity must be made evident so that minoritized students are not navigating additional burdens and must invest more energy in trying to figure it out. These students must be given extra support.

Diversity's Critique

Shift Away from Race

After several legal cases on the use of race in higher education, diversity has become a loophole used by institutions to move away from race (byrd, 2019). Further, scholars are critical of using diversity by institutions, explaining that the changes they attempt are mainly symbolic (Morfin et al., 2006). Using race-neutral tools, higher education institutions fail to generate racially diverse student bodies. Berrey (2011) argued that "rather than prioritizing only the needs of racial minority students, diversity discourse and initiatives often incorporate, represent, and even cater to [W]hite students" (p. 574). This allows schools to publicize their commitment to diversity without committing to increasing the representation of minoritized groups.

Over time, diversity has become more about defending its use rather than promotion, similar to how affirmative action has been treated historically and legally (byrd, 2019). A common defense is the educational benefits enjoyed by all students due to diversity. Hurtado (2007) explained that the academic benefits argument should be seen as a more remarkable change and endeavor to aid higher education in meeting its academic and civic objectives. Additionally, focusing on the legal arguments surrounding the legality of diversity efforts by schools has taken the much-deserved attention away from social justice activism. Other scholars explained that the quest for racial equity through legislation is fundamentally limited and cannot (and should not) be depended upon as a principal defense source for minoritized groups (Bell, 1976). There is an opportunity for change within diversity research regarding its academic benefits, especially since there is no rush to address racial inequalities related to affirmative action in higher education. However, the focus on learning outcomes "cannot address large-scale causes of educational inequalities" (byrd, 2019, p. 155).

Another critique is that in practice, diversity policies are only "relevant for a small number of students who attend or seek to attend a relatively small number of 'elite' institutions" (byrd, 2019, p. 155), which are typically the schools that are in the news due to Supreme Court cases. Admittance to these institutions is already limited to students, regardless of their background; however, most students gain access to higher education in schools not as prestigious. byrd (2019) explained:

> The disproportionate effort expended on intuitions attended by relatively few minoritized students misrepresents the most prevalent racial equity concerns in higher education, not the least of which is the stratification that relegates minoritized students to institutions that have fewer resources and where they may be less likely to be successful. (p. 156)

Scholars also noted that diversity has recently departed from race and that the interest has been to focus on what diversity can do for White students (byrd, 2019; Yosso et al., 2004). In the same vein, there has also been a decrease in institutional involvement on behalf of minoritized students and an increased frequency of systems that benefit non-URM students. This practice makes it difficult to tease out structural experiences tied to racial inequities. Berrey (2011) explained:

> The push for diversity entails, at once, a focus on race and a shift away from race . . . In contrast to the logic of remedying racial disadvantage, which relies on a structural explanation of racial exclusion, the logic of diversity provides a cultural explanation of inclusion. Rather than emphasizing the imperative of social justice, diversity discourse and many diversity programs stress the instrumental benefits of racial identity and of interpersonal interaction along racial and other lines. (p. 577)

Researchers explained that the departure from race in diversity talks is because there is more emphasis on cultural differences and assisting students in navigating differing viewpoints and experiences seen in diverse groups of students. Berrey (2011) argued that race does not need to be included in diversity talks, which makes detecting the sources of systemic inequities difficult. Anderson (2001) coined this phenomenon "diversity without oppression" (p. 199). In this scenario, "people can simultaneously recognize diversity, but not oppression; deny difference and appreciate diversity; conscious of racial differences, but not conscious of continuing racial injustice (Andersen, 2001, p. 199). This conflict prevents diversity from becoming a force of change.

Commodification

There is also the risk of commodifying diversity by overemphasizing the instrumental benefits of diverse learning environments (byrd, 2019; Hurtado, 2007; Jayakumar, 2008). First, diversity develops into something that is consumed. “One’s commitment to diversity, then, extends only so far as the personal value one sees in it” (byrd, 2019, p. 157). In this way, diversity advocates must work to convince members of the majority of the value of diversity. The importance of diversity is no longer on what it can create for minoritized group members but on what it can for members of the majority. If there is no value in diversity, customs will not change at institutions, and minoritized students will lose out on diversity’s benefits.

Another instance of commodification is in relation to “racialized cultural goods,” especially in settings where diversity is not prevalent (byrd, 2019, p. 157). This specifically concerns the curriculum and the exchange of ideas by students of different backgrounds. But byrd points out that “due to limited access and constrained outcomes for minoritized students in higher education, this diversified curriculum largely exists in spaces from which minoritized students are relatively absent” (byrd, 2019, p. 157).

A final instance of commodification is that “diversity makes the presence of cultural diversity an asset that institutions can advertise and leverage to gain competitive advantage. That is, not as a social goal that is subject to critique, but as a tool for institutional advancement” (byrd, 2019, pp. 157-158). This markets diversity as a product that consumers have to have and that institutions have to offer. The consumers in this instance are members of the majority, which “serves to sanitize diversity, presenting a wholesome image of assimilated difference” (p. 158). byrd (2019) went on state:

> The minoritized other becomes digestible, helping to confirm for the White viewer that s/he can consume the diversity being offered—saying, *Diversity is great but if you're afraid of being uncomfortable, don't worry, we all fit, we're all the same. We may appear to be different but really we're the same as you.* These images ironically promise a diversity that—thanks to challenges to race-conscious practices and narrow notions of merit—is continually under attack and available only in certain geographies of the higher education landscape. (p. 158)

Benefit for All Students

Some scholars are critical of the work that diversity purports to do. While they are not critical of increasing the number or representation of minoritized students, they question if diversity is the best course of action to work towards racial equity in higher education. In his rebuke, Bell (2003) explained:

> Diversity is less a means of continuing minority admissions programs in the face of widespread opposition than it is a shield behind which college administrators can retain policies of admission that are woefully poor measures of quality, but convenient vehicles for admitting the children of wealth and privilege. (p. 1632)

Bell (2003) outlined several points to explain his position on diversity. First, he explained that diversity has enabled courts and policymakers to avoid directly addressing the impediments of class and race that unfavorably impact applicants. In court cases that have upheld the use of race as a contributing factor, not the deciding factor, he explained that "[B]lacks and Hispanics are the fortuitous beneficiaries of a ruling motivated by other interests that can and likely will change when different priorities assert themselves" (p. 1625). This was in part because it provides "maximum protection to [W]hites" (p. 1625) if diversity takes into consideration other

factors besides race. Instead of focusing on righting past discrimination and its lingering effects, the usefulness of diversity in the classroom and in society has taken center stage.

Next, Bell (2003) stated that "diversity invites further litigation by offering distinction without a real difference between those uses of race approved in college admissions programs, and those in other far more important affirmative action policies that the Court has rejected" (p. 1622). Litigation can become very expensive and disruptive to other university business. As a result, many institutions have removed the use of race from the admissions process entirely, which does not aid in boosting representation of minoritized students.

Diversity gives unfair validity to the substantial dependence on grades and test scores that privilege the affluent, mainly White applicants (Bell, 2003). Research has shown that standardized tests, such as the SAT, are not good performance predictors in school or after (Sturm & Guinier, 1996). Standardized tests measure the income of the students' parents. Students from high-income families, historically, can afford programs that teach test-taking strategies, which offers a significant advantage over students who do not. Further, these types of tests

> assume a single, uniform way to complete a job, thus excluding those who might perform just as competently in another way, but they give an advantage to candidates from higher socioeconomic backgrounds and disproportionately screen out women, people of color, and those in lower income brackets. (Bell, 2003, p. 1630)

Bell (2003) explained that schools receive so many applications for a limited number of spots available that standardized tests have become convenient because they offer "hard figures," although they "privilege applicants from well-to-do families" (p. 1631). Lastly, Bell asserted that the enormous attention aimed at diversity programs distracts from the severe hurdles of poverty

that exclude more students from entering college than are likely to earn admission through affirmative action programs.

Other scholars explained that diversity is "a new spin on affirmative action, not a new concept but a new rhetoric" (byrd, 2019). Specifically,

> affirmative action became two dirty words in a country that felt it had given its ex-slaves, women, and other protected groups enough time to get themselves together on issues of equality. A more palatable term would be necessary . . . [W]e would see the word "diversity" flexing its muscles as the term of choice when discussing affirmative action. Like a sedative slipped into the glass of an unsuspecting person, it lulled people into a dream-like sleep about affirmative action; it became the fashionable way to express the inevitable change that would take place on university campuses. (Winbush, 2004, p. 35)

Minoritized students' enrollment increased for a time, but their experiences did not (byrd, 2019). byrd recounted affirmative action intended to protect minoritized groups from discrimination but not compensate them for experiencing it. Eventually, diversity became the tool most utilized by institutions due to the educational benefits enjoyed by all students after the ban on race quotas from the Bakke case.

Theoretical Framework

Wentz (2013) described a theoretical framework as a guiding principle for an inquiry by providing structure or explaining a problem. The theoretical framework also characterizes how a researcher contemplates, articulates, and describes a problem. Lysaght (2011) underscored the need for choosing a theoretical framework for a dissertation:

> A researcher's choice of framework is not arbitrary but reflects important personal beliefs and understandings about the nature of knowledge, how it exists (in the metaphysical

> sense) in relation to the observer, and the possible roles to be adopted, and tools to be employed consequently, by the researcher in his/her work. (p. 572)

Theories come from several sources and are continually being formed and applied across various disciplines (Grant & Osanloo, 2014).

Critical Race Theory

I used critical race theory (CRT) as a theoretical framework for this study to examine underrepresented minoritized medical students' experiences. Delgado and Stefancic (2017) stated that CRT developed from a pool of scholars and activists engaged in changing and examining the relationship between power, race, and racism. It places issues thought of as civil rights issues in a broader view, such as economics and history. In the 1970s, CRT was built upon critical legal studies and radical feminism by Derrick Bell and Alan Freeman. Matsuda (1991) described CRT as:

> The work of progressive legal scholars of color who are attempting to develop jurisprudence that accounts for the role of racism in American law and that works toward the elimination of racism as part of a larger goal of eliminating all forms of subordination. (p. 1331)

There are a few basic tenets of CRT in education (Delgado & Stefancic, 2017). The first tenet explained that "racism is ordinary, not aberrational" (Delgado & Stefancic, 2017, p. 8). 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, p. 11). In this vein, CRT functions to expose racism and its variations. Hartlep (2009) explained that this tenet

> promotes and promulgates a notion of "color-blindness" and "meritocracy." These two notions are mutually intertwined and serve to marginalize certain enclaves of people—

> predominately people of color. Color-blindness and meritocratic rhetoric serve two primary functions: first, they allow [W]hites to feel consciously irresponsible for the hardships people of color face and encounter daily and, secondly, they also maintain [W]hites' power and strongholds within society. (p. 6)

The second tenet involves the concept of interest convergence, which describes how White people will allow and support racial justice to the extent that they benefit from the change (Delgado & Stefancic, 2017). A third tenet explained that White people have been recipients of civil rights legislation (Ladson-Billings, 1998). An example put forth by Ladson-Billings (1998) regarding affirmative action:

> Although under attack throughout the nation, the policy of affirmative action has benefited Whites, a contention that is validated by the fact that the actual numbers reveal that the major recipients of affirmative action hiring policies have been White women. (p. 12)

The belief is that affirmative action ultimately benefits Whites through their ability to find work.

The fourth component explained the idea of counter storytelling, which gives an authentic voice to the stories of minoritized groups (Delgado & Stefancic, 2017). Counter storytelling is essential in this study as it is integral to CRT's methods. The use of stories is a way of describing the lives of minoritized individuals and acknowledging their experiences as real.

Belonging

I also used belonging as a secondary framework to examine the experiences of underrepresented minoritized medical students. "Belonging is the experience of being accepted, included, and valued by others. A fundamental human motivation, belonging positively

influences an individual's health, abilities, relationships, and overall well-being" (Roberts, 2020, p. 661). The act of belonging is essential for URM students who are gaining access to spaces that may not have been accessible before. Roberts explained that not belonging, or the uncertainty of belonging, furthers feelings of isolation, the ability to trust, diminished effectiveness, and exhaustion. These feelings can disproportionally impact underrepresented groups.

Roberts (2020) further explained that continued underrepresentation of particular populations, in medical school specifically, contributes to the notion that they are not wanted. This situation further impedes the sense of belonging. The author recounted the experience of a medical student who felt just that:

> The thought was there, gnawing in the back of my mind, whispering at me when gross anatomy got tough . . . "You do not really belong here; you took someone else's spot." I would not dare voice these feelings to my friends or to my advisors. A part of me was afraid that they would think less of me for feeling inadequate; another part of me knew with certainty that they already knew I was inadequate. (Roberts, 2020, p. 661)

Walton and Cohen (2007) suggested that "in academic and professional settings, members of socially stigmatized groups are more uncertain of the quality of their social bonds and thus more sensitive to issues of social belonging" (p. 82), which they have named *belonging uncertainty*. Put another way, this state is when people who are made to feel marginalized doubt their belonging, do not feel a sense of connectedness, and ultimately lose motivation and subsequent achievement (Haggins, 2020). Walton and Cohen (2007) demonstrated this phenomenon in a series of experiments with Black and White students. In the experiment, Black students did not feel they belonged if they lacked social support on campus. However, Black

students did feel an increase in belonging when an intervention intended to “de-racialize” potential hardships faced in college (Walton & Cohen, 2007, p. 92).

Conclusion

This chapter has recounted a brief overview of the history of segregation in the U.S. and its long-term effects on medical education. These effects include the closure of medical schools that would admit Black students, the low numbers of URM students in medical schools today, and the impact of these effects on underserved communities. This chapter also defined diversity, described its benefits, and explained the perceptions of URM students and faculty. Lastly, the critiques of diversity were also explored. The next chapter will discuss the methods of this study.

CHAPTER 3

METHODS

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. The purpose of this chapter is to describe the justification for using qualitative inquiry in general and to discuss my use of narrative research specifically. I have defined narrative research and reviewed how this inquiry method provides an awareness of the lived experiences of underrepresented minoritized medical students.

Methodology

I decided upon a qualitative design because I was interested in understanding how my study participants interpret their experiences and what meaning they attribute to them. As stated by Merriam and Tisdell (2016), "Qualitative researchers are interested in understanding the meaning people have constructed; that is, how people make sense of their world and the experiences they have in the world" (p. 15). Creswell and Poth (2018) explained further:

> Qualitative research begins with assumptions and the use of interpretative/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis

> that is both inductive and deductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and its contribution to the literature or a call for change. (p. 8)

Historically, anthropologists and sociologists conducted what is now known as qualitative research. Merriam and Tisdell (2016) explained that these researchers also asked questions about people's lives and how they lived them. This inquiry was conducted through interviews and subsequent data analysis. The authors also described other professional fields, such as education, health, and law, using qualitative research to understand experiences.

According to Merriam and Tisdell (2016), four characteristics help understand qualitative research. Focusing on value and understanding how individuals make meaning of their lives is the overall purpose of qualitative research. The second characteristic is that the medium for data collection and analysis is the researcher. Third, qualitative research is inductive; that is, the researcher collects data to build a theory rather than beginning with a set of research hypotheses. Lastly, qualitative research produces data that are rich in description.

Creswell and Poth (2018) stated that as researchers, we bring philosophical assumptions to our work. These assumptions inform our research but are also important for several other reasons. Philosophical beliefs give direction to research goals and outcomes and inform the capacity of our preparation and research experiences. The assumptions also serve as a foundation of evaluative standards for research-related conclusions. It is common practice to take one's philosophical beliefs and apply them within one chosen theoretical framework.

Research Design

"Stories are how we make sense of our experiences, how we communicate with others, and through which we understand the world around us" (Merriam & Tisdell, 2016, p. 34). A narrative research design was used to capture the experiences as told by the research participants. Narrative research "begins with the experiences as expressed in lived and told stories of individuals" (Creswell & Poth, 2018, p. 67). The process consists of focusing on studying the participants and gathering data through the collection of their narratives. It is vital to report their experiences accurately and to sequence the meaning of those experiences appropriately.

Creswell and Poth (2018) described features that define the boundaries of narrative research. As stated before, a powerful element of narrative research is collecting participants' stories and telling their experiences. This storytelling also leads to collaboration between the participant and the researcher through this process. Time and space are features of this inquiry, as they help shape the participants' stories. Through narrative research, scholars are

> describing and understanding rather than measuring and predicting, focusing on meaning rather than causation and frequency, interpretation rather than statistical analysis, and recognizing the importance of language and discourse rather than reduction to numerical representation. These approaches . . . concern themselves with particularity rather than universals, are interested in the cultural context rather than trying to be context-free. (Salkind, 2010, pp. 870-871)

It is also essential to focus on what is being communicated by the study participants and how they construct their stories.

Merriam and Tisdell (2016) explained that because the writing of the participant's story are the data to be examined in this inquiry, hermeneutics philosophy is frequently named as

informing narrative research. Hermeneutic philosophy studies written transcripts and concentrates on understanding (Merriam & Tisdell, 2016). Patton (2015) asserted:

> Hermeneutics provides a theoretical framework for interpretive understanding, or meaning, with special attention to context and original purpose. . . . Hermeneutics offers a perspective for interpreting legends, stories, and other texts. . . . To make sense of and interpret a text, it is important to know what the author wanted to communicate, to understand intended meanings, and to place documents in a historical and cultural context. (pp. 136-137)

While hermeneutics studies written texts, narrative research went deeper by including interview transcripts in the analysis (Merriam & Tisdell, 2016). Salkind (2010) affirmed the narrative basis in hermeneutics:

> Knowledge is presumed to be constructed rather than discovered and is assumed to be localized, perspectival, and occurring within intersubjective relationships to both participants and readers. . . . All communication is through language that is understood to be always ambiguous and open to interpretation. (pp. 872-873)

The analysis of narrative research is "primarily aimed at inductively understanding the meanings of the participant and organizing them at some more conceptual level of understanding" (Salkind, 2010, p. 873). Through this analytic and organizing process, patterns will become apparent. The purpose here is to produce an understanding of the participants' experiences.

Participant Selection

Qualitative research does not identify generalizable data; therefore, purposeful sampling is the best choice. "Purposeful sampling is based on the assumption that the investigator wants to

discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (Merriam & Tisdell, 2016, p. 96). This intentional group of participants will enlighten the researcher about the research question being studied (Creswell & Poth, 2018). To initiate purposive sampling, selection criteria need to be established, which are the attributes of a given sample crucial to a study. The requirements below reflected the study's purpose and guided identifying information-rich cases (Merriam & Tisdell, 2016).

To select participants, I specifically implemented network sampling. This tactic encompasses finding a couple of participants who meet the criteria determined for the study. As these initial participants are interviewed, they may refer me to other potential participants who fit the established criteria (Merriam & Tisdell, 2016). This process was helpful because it increased the study's sample size beyond what I could identify by myself. "By asking a number of people who else to talk with, the snowball gets bigger and bigger as you accumulate new information-rich cases" (Patton, 2015, p. 298).

To recruit participants, I emailed an organization run by medical students called Student National Medical Association (SNMA). Black physicians founded SNMA after recognizing a need to support Black medical students and encourage their pursuit of careers in medicine (Student National Medical Association, n.d.). The founding chapters were at Howard University College of Medicine and Meharry Medical College in 1964. The organization today has grown exponentially and continues to address issues impacting medical students and create outreach programs directed at underserved and Black communities. Specifically, I recruited students from Region V SNMA chapters, including Indiana, Michigan, and Ohio schools. However, I excluded students from Indiana University School of Medicine, as I am currently employed by one of the nine regional campuses. The recruitment email can be found in Appendix A.

Participants for this study were self-identified underrepresented minoritized medical students, as defined by the AAMC (n.d.-b). This description includes four ethnic and racial groups: African Americans, Mexican Americans, Native Americans, and mainland Puerto Ricans. According to Morris (1995), there is a distinction between mainland Puerto Ricans and island Puerto Ricans. She went on to state:

> The importance of a perceived common descent to the self-definition of some groups as nations requires a differentiation between nation and ethnic group. . . . A common distinction made between the two is that the term "nation" carries the connotation of a separate political identity and desire for self-determination, whereas "ethnic group" refers to a group that sees itself as culturally distinct without demanding self-determination. . . . By these definitions, Puerto Ricans in Puerto Rico are a nation; Puerto Ricans in New York may still be part of the Puerto Rican nation, depending on who is doing the defining, but in the U.S. mainland they constitute an ethnic group. (Morris, 1995, p. 12)

That is, island Puerto Ricans view themselves as a separate group, despite their relation to mainland Puerto Ricans.

Second-year medical students were chosen because they live an academic medical school experience. Additionally, they have more classroom time than first-year students, so the experience should be recent in their minds. In contrast, third- and fourth-year medical students are immersed in clinical experiences, so their focus would not be on their academic medical experiences. A sample size of six participants was obtained. The informed consent form can be found in Appendix B.

Participant Demographics

Table 1 provides an overview of the study participants. The table includes information regarding the state they attend medical school, their gender, and the race or ethnicity with which they identify. Additionally, pseudonyms have been used to protect participant identities, which the participants themselves selected.

Table 1

Participant Demographics.

Name	School State	Gender	Age	Highest Degree	Race/Ethnicity	Marital Status
Ashley	Ohio	F	26	Master's	Black	Married
Kyle	Michigan	M	32	Master's	Black	Single
Taylor	Michigan	F	27	Master's	Black	Single
Amalia	Michigan	F	33	Master's	Black	Single
Robert	Ohio	M	24	Bachelor's	Latino	Single
Jacob	Ohio	M	30	Master's	Black	Single

Data Collection

An interview protocol was established to uncover underrepresented minoritized students' experiences and stories in academic medicine. Patton (2015) stated:

> We interview people to find out from them those things we cannot directly observe. . . . We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous point in time. We cannot observe situations that preclude the presence of an observer. We cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask people about those

> things. . . . The purpose of interviewing, then, is to allow us to enter into the other person's perspective. (p. 426)

The primary purpose is to gather relevant data for the inquiry's purpose.

Data collection primarily used semi-structured interviews, allowing the interaction to be unrestricted and more comfortable for the participant. Additionally, the interview was virtual and took between 60 and 90 minutes. Each interview was audio recorded and then transcribed using an online transcription service, Scribie. The recordings allowed for accurate and detailed descriptions from the participant. Adding audio recording to the interview protocol enabled the interviewer to be more engaged with the participant.

The following questions and topics were used as a basis for the interview:

- Why did you decide on a career in medicine?
- Description of the medical school experience.
- Description of strategies used to navigate medical school.
- What advice could you give to a future underrepresented minoritized medical student?

If necessary, each question was followed up with a probing question to obtain more abundant data. The interview protocol can be found in Appendix C.

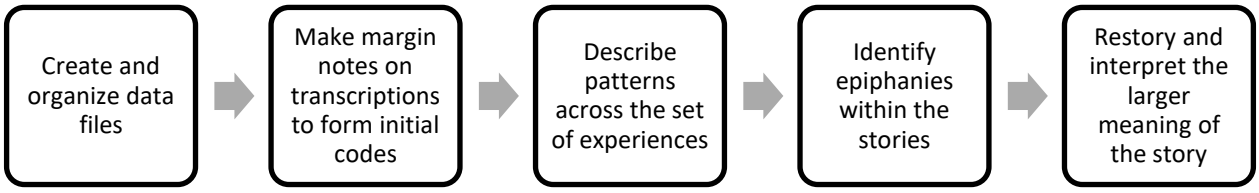
Data Analysis

Creswell and Poth (2018) described data analysis in qualitative research as consisting of "preparing and organizing the data . . . for analysis; then reducing the data into themes through a process of coding and condensing the codes; and finally representing the data in figures, tables, or a discussion" (p. 183). This process served as the basis for the inquiry's analysis. Further, each

interview transcription was analyzed by hand without data analysis software. Figure 1 represents the analysis process described by Creswell and Poth (2018).

Figure 1.

Steps in Narrative Data Analysis.



Note. From Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design.* SAGE.

"Is the account valid? How do we evaluate the quality of qualitative research?" **(Creswell & Poth, 2018, p. 253)**. The answers to these questions will ascertain the validity of my study. Creswell and Poth **(2018)** considered validation "to be an attempt to assess the 'accuracy' of the findings, as best described by the researcher, the participants, and the readers (or reviewers)" **(p. 259)**. Thus, several steps were taken to ensure the validity of this inquiry.

With help from participants, member checking was employed. "This approach . . . involves taking data, analyses, interpretations, and conclusions back to the participants so that they can judge the accuracy and credibility of the account" (Creswell & Poth, 2018, p. 261). I also looked for corroborating evidence through outside sources, if available. These sources included researching programs or data provided by medical schools. I also relied upon external auditors to ensure that the data supported my findings. External auditors may also help uncover any potential biases that may have been overlooked.

Positionality

As stated in my personal statement, I am a former pre-medical student who found it challenging to find a peer support group in college. From my personal and professional experiences, I believe more resources could and should be available for URM students in academic medicine. It is from my experiences that I have recognized my potential for bias in this study. I implemented reflective note-taking throughout the process and member checking, as mentioned above by Creswell and Poth (2018).

Conclusion

This chapter discussed the type of inquiry used to conduct this study and why the qualitative design was used. Because I was interested in understanding the experiences of my study participants and how they interpret them, and the meaning they attribute to them, I used a narrative study design. Participants who identified as URM students were selected and interviewed. Their interviews were audio recorded and transcribed for data analysis. The next chapter will describe their stories.

CHAPTER 4

PARTICIPANT NARRATIVES

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. This chapter describes the participants' stories, focusing on the individual lives and experiences of their first two years of medical school. This chapter does not examine their experiences through an analytical or theoretical lens. Thorough data analysis is discussed in the following chapters regarding themes and theoretical frameworks. The narratives vary in detail and length depending on the participants' level of candidness. They are outlined in the order in which they were conducted.

Participant Stories

Ashley

Ashley, a baby-faced 26-year-old Black woman, attended a medical school in Ohio and was a second-year medical student at the time of the interview. The participants were in the most comfortable and convenient location by interviewing over Zoom. As such, Ashley, wearing a green zip-up hoodie with her light brown dreadlocks thrown up in a casual ponytail, spoke with me while sitting in her car in the parking lot of her apartment complex. While not giving much away in terms of her personality due to the location of her interview being in her car through the

camera of her cellphone, the buildings in the background indicated that they were well maintained, and the landscaping was clean and minimal in design.

A Career in Medicine. Ashley began the interview by explaining why a career in medicine was for her. She animatedly explained, "I always knew that I wanted to be a doctor, literally since I was a kid. It's just something that I aspired [to] as a child, and it just never left me." Pausing with a contemplative look, she further explained that the decision was also due to personal reasons:

> I always said I wanted to be a pediatrician, but that has transitioned to me wanting to be a family medicine doctor. After losing my father five years ago to health issues, I understand the impact of total wellness and how it really does have to be a collective effort in the family. Especially a community difference.

Ashley's journey was not smooth as she explained that there were "segues, humps, and bumps to get here in medical school." This journey also included enrolling in a Master's program to better her chances of medical school acceptance. Further, she shared that she prepared herself for this career goal by working jobs that have been science-related, "whether it was research or diagnostic medicine." She also shared that she would be the first doctor in her family, so it was a "collective effort in the family" to support her in this pursuit.

Medical School Experience. Like many students during the pandemic, Ashley had a unique academic experience, with her classes being almost exclusively online. While explaining the complexities of having online courses, she shuddered and enthusiastically exclaimed:

> Whew, yes, Lord. So, all of our classes were online, except for our anatomy [course]. We actually were fortunate enough to go in person [for some classes]. Everything else was completely virtual . . . But as far as our regular day-to-day classes . . ., that was virtual.

In addition to the pressures of being a medical student, she also contended with challenges in her personal life:

> I'm from Virginia, and I go to school in Ohio. I got married in May; school started in July. Yeah, when I tell you [it] I was a lot, it was a lot. I, yeah, I was planning my pretty much virtual wedding at the same time we were planning our move to Ohio. We were on a waiting list for our apartment. I moved in the day before school started. It was just a lot. I wouldn't recommend the way we did it, but that's the way things fell. We hadn't seen our apartment before we moved into it. I didn't know anyone here at all.

Ashley further elaborated on hardships due to her virtual experience with classes and commented that she had difficulty with the technology for the academic year, sighing:

> My laptop was older. It did not meet the demands of what school required as far as doing like a separate room for my group because we have a split classroom, so it's not even like traditional lectures. So, it's not like me watching a recording. I have to actively be in school.

Ashley sadly noted that it was:

> To the point where the administration reached out to me and told me that I need to fix whatever issue it is because I missed too much of class time and it was going to count against me . . . And this was kind of like the same time we're learning about how barriers to access in medicine, so I just thought it was very ironic.

Unfortunately, she explained that the school did not offer her help to solve her technology issues.

Although Ashley did not feel that the school did enough to help her in this particular instance, she did not think this was due to her race or gender. Relaxing in her seat a little, she went on to say:

> I don't think it was because I was a Black woman. I just think they have an expectation, and this is what it is, and that's on that. And I do believe sometimes that . . . they weren't the most understanding.

She also believed that medical school is "fast pace[*sic*] in general," and the school did not make enough accommodations for her or her classmates.

Ashley stated that she received support from a clinical faculty member when she suffered from undisclosed health issues. The faculty member gave Ashley recommendations for doctors to treat her. She also explained that this faculty member followed up with her to ensure she was treated appropriately.

Institution Composition. Out of about 120 students, Ashley approximated that she had 29 Black classmates in her class on their campus. She happily explained that they were close as a group:

> Just being able to be with some of the students who look like me it's been very helpful because school is hard! School is hard! And for me, it was definitely a challenge just this first year and some of my friends.

Ashley stated that her school implemented a mentoring program with the class above them (e.g., first-year students paired with second-year students). Being a Black married woman, she requested another Black married woman as a mentor and found it very beneficial to be paired with her. Their shared experiences helped Ashley navigate medical school.

However, with a look of disappointment, Ashley explained that her school did not have Black teaching or clinical faculty. However, she said that her school did have Black staff members who interacted with the student body, so she felt they were helpful. However, she stated that her school would bring in "community members, other healthcare professionals that

may not necessarily be medical doctors, to talk to us about certain topics," precisely issues regarding "racial disparities."

Interactions with Non-URM Classmates and Faculty. While Ashley's first-year class had "a lot" of Black students, they were still members of a minoritized group and faced challenges when interacting with non-URM classmates. In one incident, not directly involving Ashley, she sat up straighter in her seat while explaining what her friend experienced in class one day:

> She said that one of her White classmates made a mnemonic for a certain disorder that was racist. One of my friends in the group was the only Black person in the group [and] was like, "Are you kidding me?" And she addressed it. She told administrators about it, and it was actually in a town hall.

The incident was not resolved satisfactorily for Ashley or her friend, but she stated that the White student met with school administrators informally to discuss the incident. Overall, with a relieved look, she explained that this was not frequent and that her classmates generally got along.

Ashley also described an incident involving a professor's use of a racist medical term instead of the more widely accepted term:

> We've had a professor say something racist. It wasn't something they said that was racist; it was something in medicine that was racist. Specifically, it's called the "Redman Syndrome." It's the nickname people give it. And "Redman" refers to . . . it's a racial slur for Native Americans, and so someone said in class, "Please don't use that term. There's another term that is acceptable."

This incident eventually became a teaching moment for the class, as some of her classmates spoke up immediately and challenged the professor's use of this term.

Kyle

Kyle, a serious and thoughtful 32-year-old Black man, attended a medical school in Michigan. At this interview, he was a rising third-year medical student, having just completed his second year. Initially, it was challenging to schedule a time with Kyle because of the dramatic change in his school schedule, as he was conducting required orientations for his third year of medical school. Because of this, he could speak to me in between sessions at the hospital.

Kyle was dressed in blue scrubs and a white coat with a low-cut fade and a goatee. He found a quiet place to interview in the residents' lounge. The lounge was white with a row of floor-to-ceiling dark blue lockers in the background and a small table with two chairs visible. Kyle generally looked comfortable and at ease in this environment.

A Career in Medicine. With little hesitation, Kyle explained that he decided that he wanted to become a doctor, not only to help people but also to "help other young Black guys to look at me and say, 'I want to be a doctor, too.' That's a big part of my motivation." Given his current attire, I asked him what he would like to specialize in after graduating. His face broke out into a broad smile, and he stated that he was interested in emergency medicine because he likes "the pace, it's kind of like problem-solving, and it's kind of like organized chaos, and I kind of just gravitate towards that."

Kyle said, while spreading his arms and pointing to the ground, he "got here because I tried everything else." After receiving a chemistry degree, he took a job in a food laboratory and ultimately realized he did not enjoy the isolation that came with this type of career. He explained that "I'm a little more social than what I feel like a research career would allow me to be," so he

decided to pursue a medical career. He eventually returned to obtain his Master's degree before attending medical school.

Medical School Experience. Kyle expressed a feeling of bias regarding how he was treated during the first two years at his institution by some faculty members. This seemed to weigh heavily on him when recounting the experiences. When asked to elaborate, Kyle frowned and stated that:

> The first one was, the first week of actual class, we had a White professor who led our small group session. He pulled me to the side, and he said, "I feel like you're not grasping the material." And I looked him in his face, and I said, "It's the first week. Should I be understanding medicine after my bags are still packed in my apartment?"

This particular instance was a barrier that Kyle felt did not make him feel welcome, especially when one "feels like they should not be here in the first place." He attributed this to his race specifically.

Kyle also recounted another incident that should have been a valuable learning opportunity but highlighted something that he felt was negative. Engrossed in his thoughts, he described a remediation-type course for students who did not meet a certain score threshold after the first exam in his first year. The course was intended to help students "build study schedules and how to use a lot of resources," according to Kyle. He explained that the course "took a lot more time, it was not helpful at all. And I looked around; it was no White students at all. It was just minority students. And I'm just like, 'why?' This doesn't make any sense, statistically." Kyle stated that he and some of the other minoritized students took issue with the makeup of this course. He said one student may have taken the matter up with the administration, but while throwing his hands up, he was unsure if they "followed through with it."

Institution Composition. Kyle also noted that his first-year class had about 200 students between two campuses, and about 20% of the class was Black. He also stated that his institution did not have Black faculty members but did have about three Black clinical faculty members. He felt the lack of representation among classroom faculty was problematic while recounting the following story:

> We had a professor say, "When you're dealing with . . . minority patients, maybe you can draw a cartoon for them to help 'em understand their diagnosis." And I was just like, "You cannot perpetuate that sort of treatment of people at all." And it's just like, it's almost like there's no minority in leadership to say like, "You don't say these things. These things aren't true."

Kyle felt that students would take those types of statements to heart, believing, "Oh, I learned this from that school, so this is fact."

Despite these experiences, Kyle acknowledged that there were avenues of support in social networks and student clubs. While he did not feel that there were many opportunities for mentoring, he did find a "gentleman who is in the office of Academic Achievement" who was "very supportive" but did not "have the resources he needs to make an impact." Kyle explained that this staff member, who is a physician, hosted informal study groups:

> But it became pretty large. All the Black and brown students would go to it, Latin or Hispanic or Mexican students, and so I don't know if White students took offense to that or "what is this resource?" But it ended up getting shut down at the end of the day, which was not surprising.

When asked if he was more perceptive to issues related to race or microaggressions than some of his other classmates, Kyle sat up straighter in his seat and matter-of-factly stated that he believed this was related to his upbringing:

> My mom [was a] very strong Black figure in my life, just taught me the ropes of like, "This is how you act, this is what Black people have experienced, this is what you do as a Black man," and I really take that to heart and just recognize the struggle that most Black people in this country go through.

Interactions with Non-URM Classmates and Faculty. Kyle felt that he had a positive experience with his other classmates and felt supported despite these instances. He noted that:

> You had students who were from more rural areas, and I'm sure they've never seen a Black person before, let alone an educated Black person, so that dynamic was kind of interesting to approach. Some comments here and there. People who just didn't understand things like intersectionality, White privilege, systemic racism. Really basics of critical race theory in this country, like no idea these things even existed.

However, Kyle attributed these instances to ignorance or not knowing any better rather than malice or disrespect.

Taylor

Taylor, a soft-spoken and unassuming 27-year-old Black woman, was the following interview. She appeared to be reserved and was straightforward with her responses. She was a second-year student attending a medical school in Michigan. Wearing black glasses and an oversized sweatshirt, she looked comfortable with her straight brown hair in a low ponytail while slightly slouching in her office chair at her desk. She explained that she lived alone in her apartment, so the environment was quiet.

The interview took place on a sunny morning, so Taylor had great sunlight from her window at that time that illuminated the rest of the space visible behind her. It did not appear that she had a designated room as her home office, as her living room and kitchen were visible. The apartment appeared to be just enough room for one person, as the entire space was visible from where she was sitting. Her apartment walls were bare and white, with beige carpet throughout. The kitchen was small with dark brown cabinetry, black appliances, and two wooden barstools at the cream-colored counter for seating. Her living room was tidy, with one overstuffed sofa and a medium-sized television mounted on the wall.

A Career in Medicine. Taylor indicated that she knew from a young age that she wanted to become a doctor when she grew up. Softly grinning while tenting her fingers under her chin, she explained that her mother told her early on that she was going to be a doctor, and that was her goal since then:

> She kind of like put me on that path, I guess, just from the jump, so it's just kind of where my mind had been. Well, she [told] me, "[You're] gonna be a pediatrician," and then as I was growing up with that. I loved kids. Even when I was little, and I would see kids in the store, I'd just get so happy.

She further elaborated on the appeal of becoming a doctor:

> I kind of liked the autonomy of being a physician, and I liked just the different aspects of medicine. Not really, just being restricted to mental health per se. Just the opportunity to make an impact, especially with there being so many disparities with people of color. Just having a chance to make a difference.

While Taylor had the encouragement and support from her family in pursuing this career goal, she proudly stated that she would be the first to become a doctor in her family.

Medical School Experience. During medical school, a significant obstacle for Taylor was the pandemic's impact on her mental health. She sighed and sat back a little further in her seat as she explained that it was difficult:

> Many people didn't like to meet up on campus and study and stuff. I live alone, and I live a little bit further from campus just because I'm a little bit older, so I didn't wanna be around too much of the undergrad scene, but I made it through.

Not having the usual social connections one would have as part of an academic program was challenging for Taylor.

Although her social connections were lacking, Taylor did have a small support group at school. Sounding a little disappointed, she noted that her friend group comprised "a friend or two," and they would "hold each other accountable." She elaborated that her relationship with her other classmates was mostly superficial:

> I made a couple of other friends, but it's more just like people that I talk to, not really bona fide friends, I guess you could say. We don't really. . . study together or anything like that, so that's been a little hard. I guess we don't really talk about school or anything, either.

I asked her to speculate why she had difficulty connecting with her peers. She looked away and paused for a few seconds before answering with a pensive look on her face:

> I just didn't feel like I'd really fit in with them. I don't really know per se if it was a race thing, or because a lot of them were also younger than me, if it was an age thing. So, I don't know, but I . . . for the most part, I've just been finding it hard to connect with people here.

Nevertheless, she does not have an adversarial relationship with them.

Institution Composition. Taylor stated that her first-year class, out of almost 300 students across three campuses, had about 13 students of color. However, she explained that at her campus specifically, there were four. Taylor also explained that this figure "tends to be like about the average, so I guess that's not bad, but it's also like out of a class of over 300, it's also not great."

Taylor also noted that her institution had about four Black faculty employed there. One of those faculty members teaches a patient care course. When asked if that was positive when talking about health disparities or social justice issues, she scrunched up her face, raised her shoulders, and explained that those topics were "kind of incorporated" into the course, "but to be frank, it's not really that great." She went on to say that "the intentions, I think are good, but it's like, 'Are people really going to . . . do people really care?' Probably not." When asked to elaborate, she stated similarly that:

> I feel like for a lot of the students, I think like they are learning to [get] spoon-fed. It's easy, just like to, especially between the mix of courses, just to kind of disregard that. 'Cause, that's not really heavy information. If you're studying for an exam with a whole bunch of stuff on it, you're not really gonna sit down, "Okay [and seriously examine the information]." I think that most people just say, you know, that Black people are probably, more often than not, going to be at higher risks for things. So, I think that's probably what they've taken away from most of it.

Interactions with Non-URM Classmates and Faculty. Taylor seemed pretty resigned to being one of a few Black students on campus and mentioned, in a matter-of-fact manner, while shrugging her shoulders, that the school hosts town hall meetings or "safe space[s] to talk" to address racist incidents that have happened in the news. She also explained that she had been

used to being the only Black person in academic settings since she was in high school. While she does not describe negative interactions with her non-URM classmates or faculty, she did sound frustrated while speaking about how little some of them have been exposed to people that are different from them:

> I just think that just White people can be different, especially again, when their upbringing is different. I think when I first moved here, I've heard some of them like basically never interacted with Black people in their life . . . Yeah [nodding with wide eyes], and it's like I can't even be mad at them 'cause, of course, I'm not sure it wasn't out of choice, really. But you know it's just one of those things. People are attracted to people who would look like them more often than not.

Amalia

Next, Amalia, a 33-year-old Black woman, conducted her interview while driving via the Zoom mobile app. She was very gregarious and had a very infectious laugh. At our interview, she had just completed her second year of medical school and was a rising third-year student at a Michigan medical school. She explained that she had a break from school and was traveling home, so she told me she would be driving while she spoke with me.

Before we started the interview, Amalia was parked in a gas station parking lot, getting ready for her trip. She looked like someone who wanted to be comfortable for an extended car ride, so she wore a loose-fitting grey t-shirt with her long black twists pulled back with a wide black headband. She also had on a pair of oversized black sunglasses. Her cellphone was mounted to the dash of her car, so I could see Amalia clearly and the black leather interior of her vehicle. It was sunny where she was located, with very little traffic.

A Career in Medicine. Amalia began the interview by explaining why she believed that a career in medicine was for her:

> I just felt that it was what I could use my assets to do best. [Laughs] Naturally caring . . . I wouldn't say naturally, but I cared about people, helping people, and also just the desire to lead too . . . as well as just [an] interest in medicine, in general like science, the human body, [an] interest in that in general. So, kind of combining all those things together.

I asked her where this desire came from, and she laughed and said that her parents "pushed me towards medicine." They encouraged her to pursue this career path and enrolled her in educational programs and schools to help cultivate the necessary skills. Specifically, her parents enrolled her in a high school that was "geared towards getting kids into medical school" in Houston, Texas:

> So, our high school was . . . close to the Texas Medical Center. [When] you're in your junior year, you had two periods . . ., where you would go and shadow a doctor in the field that you thought you were interested in it at the time. For me, I was interested in OB at that time, and so I shadowed OBGYN for, like, I think it's for six weeks. And then [the school was] very heavy on the sciences, grades. We didn't have sports. Our school was strictly academic. So, there wasn't basketball, football, there weren't any of those things. It was very small.

She also explained that she would be the first doctor on either side of her family.

Medical School Experience. Amalia felt that being the first in her family to attend medical school became an obstacle. She sighed, shook her head, and explained that it was an instance of not knowing what resources were available and not knowing "some things that I should have been doing in preparing myself" for medical school. She further elaborated:

> I'll say one of the things now, looking back, there's definitely things I didn't know that should be happening, you know what I mean? [A]gain, coming in from a background where no one in my family had done this. There [were] just some things that I should have been doing in preparing myself that I didn't realize. Even the resources people were using.

Institution Composition. While there were only three Black students in Amalia's 104-person class and only one Black faculty member, she felt that some class discussions highlighted the lack of diversity among the group and stunted the sharing of resources. She grinned and explained that:

> They came from different backgrounds than me. Some of the ways they related to each other was a little bit different than I could relate. And I will give you like a . . . This is the most basic example they were talking about . . . '90s music. I'm thinking Brandy. I'm thinking Monica. I'm thinking that type of stuff. And they were mentioning different artists, and I was like, I have no clue, do you know what I mean? [chuckle] Or even like different looks, like what a '90s outfit look would look like, and I'm just like, "What?"

Amalia furthered her point:

> Just the most trivial examples, but different things like [music preferences] where I realize that "Okay, because you guys have the same racial background, then [that] gives you a cultural background, like your shared experiences growing up in the U.S. is a little different than mine."

Interactions with Non-URM Classmates and Faculty. Amalia did not feel that specific responses her White classmates would give were due to racism or malice, but a lack of understanding and commonality:

> I don't know [heavy sigh]. I mean, I think that could be a possibility for some people, 'cause you definitely. . . live in Michigan. . . . I had classmates that admit that they were from smaller towns in Michigan, where they didn't really interact with a lot of Black people, or people of color in general, and I think it's definitely possible. I experienced that.

Specifically, "maybe if there was more diversity, there'd been more cross-talk among people," according to Amalia. She noted:

> The racial component or lack of diversity, I wouldn't say like . . . I didn't have anything where classmates were like blatantly disrespectful or anything like that in my face. I've just noticed that some of the shared experiences allowed for different conversations, for instance.

This was apparent to her during clinical case-based learning groups where they were required to diagnose and treat a patient with the information given to them as an assignment. She was the only Black student and the only student of color in one assigned group.

Robert

The following interview was with a 24-year-old Latino named Robert, whose family (specifically his grandparents) was from Mexico. He was a second-year student at the time of this interview and attended a medical school in Ohio. Robert had a bright smile with dimples on both cheeks and looked much younger than his age. He had dark brown hair that reached just above his shoulders, tucked behind his ears, with a clean-shaven face. Robert wore a red short-sleeve polo with the top button undone with a white undershirt. His height was not apparent since seated, but he appeared slightly muscular.

Robert decided to conduct his interview at a local coffee shop he frequently visits to study. He was tucked away at a corner table by himself, wearing a pair of Apple Airpods and drinking a large coffee. He generally looked relaxed in his posture while he spoke with me. It was unclear what the weather was like at his location because there were no windows in view.

A Career in Medicine. Looking off camera with his eyebrows pulled together, Robert explained that he had "always wanted to be a doctor," even at a young age:

> I remember my parents would buy me toys when I was a kid, like toy doctor kits. I think this was their way to help; I don't know, nurture my aspiration to become a doctor. I don't remember ever wanting to become anything else.

He also explained that he was a first-generation college student and the first person in his family to attend medical school, so it was important to his parents to

> give me any advantage they could. They would sign me up for science-related clubs or after-school programs. My mom heard about a med camp that a local medical school was hosting, so yeah, she signed me up for that one summer. If they heard about anything that they thought would help me, they signed me up [chuckles].

Medical School Experience. As a first-generation college student and medical school student, Robert faced obstacles related to a lack of knowledge. He explained that he "didn't know what he didn't know," as he did not have family members to show him the way. He further elaborated:

> It was super overwhelming at times when I would find out new resources or other resources I wasn't aware of. I just couldn't understand how other people were finding these things out! Like, what are the best books to study for anatomy? There are apps. There are websites. There are books. It's just too much sometimes.

While shaking his head, Robert explained that he felt "a semester behind" his peers when he first started medical school because he did not understand how to "effectively use [my] time to study." He often found himself "barely above" the passing threshold for exams, which was "always stressful and embarrassing to find myself after each exam." He explained with his hands, "I've heard so many times that medical school is like trying to take information in through a fire hydrant. It's just so much." Eventually, he found other classmates he felt comfortable with to study, and they could hold each other accountable.

When asked about his perceived disadvantages, Robert said that he did not feel that he was disadvantaged because of his ethnicity:

> I mainly attribute my struggles to my lack of knowledge of the ways of medical school. And that's mostly, I think, probably has more to do with not having family knowledge passed onto me. I mean, I recognize that as a people, we're probably at a disadvantage in terms of access to resources and bigotry, but I've got to take ownership of my shortcomings too. I can't recall an overt instance where my being Mexican has held me back or contributed to my education negatively.

Institution Composition. Robert estimated that about 15% of his class was composed of students of color, and about five identified as Latinx or Hispanic at his institution. He shrugged and stated that he was "used to being the only one" in school who looked like him, so he was not entirely uncomfortable at this point in his life with the lack of diversity:

> Where I grew up, there is not a large Mexican community or Hispanic or Latin for that matter, so it's not unusual for me to be alone in that way [shrugs]. I have learned to have more pride in my heritage and where my family has come from, especially after the last few years in our country, so I was so excited when I found others like me here [smiles].

Robert felt a sense of community in the clubs he joined that connected him with other students of color. He indicated he was a Latino Medical Student Association (LMSA) member. LMSA "exists to unite and empower current and future physicians through service, mentorship, and education to advocate for the improved health of the Hispanic & Latina/o/x community in the United States (The Latino Medical Student Association, 2021). While he was not comfortable "being a full-on social activist," he appreciates and is proud of the work this club has accomplished while he has been a member.

Interactions with Non-URM Classmates and Faculty. When asked about interactions with his other classmates, Robert explained, shaking his head:

> I feel like I get along pretty well with my White peers. Like I said, I don't recall anything outright racist happening in our classes. But you can tell some of my classmates have never interacted with anyone other than White people, which is crazy! If we talk about patients in our cases that are Black or Hispanic, they immediately get uncomfortable or blame the poor health outcomes on "low SES," or "poverty," or "poor education." We don't all fall into those categories.

Robert also stated that he felt that his faculty members should be more equipped to discuss those kinds of issues:

> I feel the same can be said about our faculty members too. I just feel like the school should do more to educate and prepare us, as a whole, for a more diverse patient base. Again, I don't feel that I've been discriminated against, but they could do better.

Jacob

The final interview was with a 30-year-old Black man named Jacob. He was expressive with a bright, easy smile, yet was very thoughtful in his responses. Jacob had just finished his

second-year coursework at an Ohio medical school, so he explained that he was on a "short vacation from all academic work." When he initially responded to my request for participants, he was very interested and excited to share his story.

On the day of the interview, it was cloudy and rainy where he was located. The lighting in his space was not great since he relied upon natural lighting from the outdoors. He was of medium build and wore a light green crewneck short sleeve t-shirt with a silver rope chain slightly visible beneath the collar of his shirt. Jacob wore his black hair in short sponge twists, which he often twisted while thinking of responses to questions. His apartment, which he shared with a Black male roommate who sometimes made an appearance walking through the background, had light-colored walls. Jacob had his laptop on his lap, so his dark-colored sofa was the only other piece of the apartment that was visible.

A Career in Medicine. Jacob, still twisting his hair, explained, while chuckling, that he initially wanted to become a lawyer growing up:

> Man! I wanted to be an attorney when I was little, just like my uncle. He was, and is, so respected in our family and in the community. He just has this . . . swagger about him that's so dope. I really gravitated towards that type of vibe.

When asked what changed his mind about going into that field, he explained that

> I've always been interested in science. I didn't always get the best grades [chuckle], but I liked the work. So, when I started looking into colleges when I was in high school, I decided to pursue something in the medical field.

A certain level of "prestige" drew Jacob to become a doctor. While he acknowledged the importance of "caring" and "respect" for his patients, he also wished to emulate the "swagger" and lifestyle of his attorney uncle.

While Jacob was the first in his immediate family to attend college, let alone medical school, he explained, while running his index finger over his eyebrow, that pursuing higher education was encouraged:

> So, my parents didn't go to college. I'm not sure why and to be honest, I don't think they know either [shrugging]. They're just from that era that could do without it, I guess [shrugging]. I mean, they had good-paying jobs when I was growing up, so that wasn't an issue. But they always pushed me towards going to college. My cousins were going to college, so I had that model to follow, too.

Jacob also explained that he decided to pursue his Master's degree to bolster his academic record for his medical school applications.

Medical School Experience. While rubbing his bare chin and looking towards his window, he explained that his first two years of medical school "weren't bad":

> I felt like I got along with most of my classmates. I'm older than most of them [chuckle] . . . by a few years, give or take. I'm a sociable person too. I love meeting new people [smile], so I didn't have that issue. While I didn't have family members to show me the way in terms of what to expect in medical school, I tried my best to link up with as many of my classmates and build those bonds.

Jacob explained that by making connections early with his classmates, he made sure that he would never be "alone." With his hands outstretched, he went on to state:

> I was nervous about falling behind. For better or worse, as a Black man, I'm always seen as a credit or discredit to my race. I wanted to make sure I had access to as many resources as I would need, and that included my classmates. Some of my White peers and

> Indian peers have parents or other relatives as doctors. I don't. This is all brand new to me.

While Jacob may not have personally known the best study resources, he formed study groups early on and "to ask lots and lots of questions, regardless if they were 'stupid.' I can't be worried about that [laughs]."

Institution Composition. Counting on his fingers with a pensive look, Jacob estimated that there were about "10 to 15" Black people in his class. He explained, "it's a large class, and some of them like to keep to themselves, so I haven't been able to keep up with everyone." However, he explained that they generally keep each other "in line" as accountability partners.

> When asked about the composition of the faculty ranks, Jacob frowned and explained: We don't have very many Black faculty members, let alone people of color. I wasn't really expecting that, so I wasn't surprised by it before classes started. We definitely don't have any Black clinical [faculty]. So, I feel some responsibility to speak up if things don't sound right.

Jacob further explained:

> For example, whenever we have case studies with fake or mock Black or brown people as patients, some of my White peers always, always use low SES or poverty as a reason for the health disparity that we're discussing. It's low-hanging fruit and not at all representative of those groups. And then, the faculty do not offer any other explanation. I just wish that we had faculty who were . . . I don't know . . . [pause] better trained? Something . . . [pause] because it just doesn't prepare us to treat underserved communities.

Interactions with Non-URM Classmates and Faculty. Despite these issues, Jacob feels he has a good relationship with his peers and faculty members. Laughing, he explained:

> I'm sort of a class clown. I like to have a good time. I recognize the seriousness of it all, don't get me wrong. It was a long journey to get here, so I want to make sure I take care of my mental health, too, you know? But I get along with my White peers. I have a group who I consider to be my friends. We study together frequently, so they've been a big help to me when school first started.

Jacob also expressed that there is a "progressive group" of students who are involved in local activism:

> So, I'm one of the older ones in my class, but I've started to notice that a lot of these younger students, for whatever reason, are pretty active in taking up social causes. I dig it! These students were active in the Black Lives Matter movement, issues impacting the LGBT community, and women's rights and abortion issues. I was sort of surprised because when I was that age, my White peers were not doing any of that. I hope that some of that energy rubs off on the rest of the class.

Jacob, shrugging his shoulders, explained that the faculty at his school were "okay":

> I mean [pause] some are more open and welcoming than others, you know? Some are from the generation that we need to power through and get the work done. I like tough teachers for the academics, but sometimes it would be nice to have them care about you as a person. So, I know who to seek out when I need help. We do have one Black woman who is a staff member who works as an admin assistant, so she's also someone we seek out when we need [using air quotes] "comfort" [laughs].

Conclusion

This chapter described the participants' stories, focusing on the individual lives and experiences of their first two years of medical school. This chapter did not examine their experiences through an analytical or theoretical lens. The narratives varied in detail and length depending on the participants' level of candidness.

CHAPTER 5

RESULTS

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. The data from the analytical process described in chapter three are reported in this chapter. After examining the participant interviews, their experiences were organized into codes. Three major themes emerged from this process: barriers and obstacles, support, and advice. Out of each major theme, two subthemes emerged: first in family, lack of knowledge, peer support, institutional support, advice to URM students, and advice to the administration. The subthemes are outlined and discussed in their respective major theme.

Barriers and Obstacles

The participants each described incidents that impacted their experiences in medical school. Two recurring barriers or obstacles were being the first in their family to attend medical school and a lack of knowledge regarding available resources, which serve as subthemes in this section. The resources ranged from study materials that would aid in effective studying to beneficial information from networking with other physicians.

These situations, being the first in their family to attend medical school and a lack of knowledge regarding available resources, were viewed as barriers or obstacles because the participants viewed them as circumstances that made their journey more complex than their non-

URM peers. Some indicated that not having a person to guide them or having a "blueprint," as Kyle explained, hampered their efforts to be efficient students.

First in Family

Many participants indicated that they have wanted to be a doctor since they were children for various reasons. They also explained that they were the first in their family to attend medical school. Ashley stated:

> I will be the first doctor in my family, so there was no one to really guide me. But there was never anyone to say, "Oh no, you can't do that." I don't come from a lot of money. I have five sisters, and my parents took care of all of us. I grew up in a two-parent household. My parents were not doctors; they did what they had to do in order for me to be a doctor. I just always had support from family members, [and] that I could do whatever I wanted to do, whether that was a doctor or a dancer. It didn't matter.

Amalia expressed similar sentiments:

> So, I'm the first in my family to go [school] to become a doctor, on both my mom and dad's side . . . I didn't really see doctors around me in my immediate family and whatnot, but because I wanted to do this, my parents encouraged me to apply to a high school . . . geared towards getting kids into medical school.

Jacob, while not the first in his family to attend college or a professional school, was the first in his family to attend medical school. For him, this created a unique situation in his family:

> I'm the first in my family to go to medical school, but I'm not the first to go to college in my family. So, for certain family members, they assumed my experience would be the same as theirs or as the others in our family, and that wasn't the case at all. The learning

> curve is so different [in medical school]. I didn't have the same knowledge base as [my family] in this situation, so they weren't as helpful as they thought they were being.

Jacob's attorney uncle saw himself as a mentor to Jacob, but he explained that he was not as helpful during his medical school journey:

> My uncle, who's a lawyer, assumed that the same kind of tough love he experienced would work for me in medical school. You know, as sort of motivation. "Just do the work!" It did not. In fact, it was the opposite and really had me trying to avoid my family members at some times. In a way, it pushed me more towards establishing bonds with my classmates who came from families with doctors.

Additionally, Robert added that he would also be the first person in his family to become a doctor, bringing on different issues that his classmates may not have experienced. Specifically:

> I am the first in my family to attend college and medical school. God bless them; my parents worked hard to encourage me to pursue an education because I expressed an interest. They didn't go to school, so they didn't know how to help me or had connections/networks to sort of pass along to me, but always told me that I was "smart" and that I would "figure it out." I know they meant well, but it wasn't as helpful as they thought. I mean, I know I'm "smart" because my academic record says so [laughs]! They just couldn't understand the type of "smart" I was lacking.

He went on to say:

> The internet was helpful to a degree when trying to figure some of this stuff out, but there's just so much out there. Some of it not relevant. Some of it not helpful. Some of it was just so out of touch with my reality that it really had me questioning if I could even pursue medical school . . . One of my small group member's dad is a doctor, so he had

that input and then his dad's buddies, and on and on. I mean, I made it here, but man, I would have been able to direct my energy better and saved myself some grief.

Robert and some other participants alluded to being the first in their families to attend medical school as a disadvantage. Research has shown that this may be the case for some students. Brosnan et al. (2016) sought to explain why students of underrepresented backgrounds participate (or not) in medicine and to pinpoint strategies to combat classism by exploring 22 FiF (first in family) students' experiences through interviews at an Australian medical school. The authors found that study participants were less likely to have access to the required social networks, eventually leading to feelings of seclusion once they started medical school. Possessing the right social networks in medical school is an enormous advantage. During the academic years in medical school, these connections facilitate the sourcing of educational resources. In the future, those types of relationships will facilitate placements in residency programs after graduation. Many of the study's FiF students felt this was a hindrance in this respect (Brosnan et al., 2016).

In the second phase of this research, in collaboration with Brosnan et al. (2016), Bassett et al. (2018) sought to gain insight into the aspirations of 20 FiF medical students and their experiences as they matriculated into medical education. One of the themes recognized within the results was one of expectations. Many students were also oblivious to medical students' expectations regarding required coursework. These students were experiencing challenges when attempting to assimilate with their non-FiF peers, which led to feelings of isolation. The workload in medical school is vast, creating barriers for these students when looking for support. They did not fit in with their new social circle, yet they could not connect with their old circle because of their new, unique circumstances (Bassett et al., 2018).

Lack of Knowledge

Since many participants declared that they were FiF students, they explained that this contributed to a lack of knowledge regarding academic medical resources. These resources included study materials, effective study methods, and mentoring networks. While some participants eventually found these resources, they believed this made their path more demanding and set them back more than some peers.

Mentoring networks and relationships are one important piece to academic success for students. Aagaard and Hauer (2003) explained that "mentoring is a core component in the training of young professionals. Although there is no consistent definition of a mentor, most emphasize teaching, professional and personal guidance, sponsorship, role modeling, and socialization into a profession" (p. 298). However, some participants were not successful in acquiring these relationships.

Kyle explained that, in his experience, there was

> so little mentorship that was available . . . but in terms of older people, it's really hard to get those sort mentoring connections that you know people in majority groups do have so easily. And I feel like that's what made my path a lot more difficult 'cause I wasn't sure what to do, I wasn't sure what schools to apply to, what I should mention, what I should highlight. Whereas you know, you may have someone in high school who has a father or an uncle who's a physician that may be White, Asian, Indian, and then they kinda had that blueprint for years.

Robert also expressed similar sentiments about where to look for networking connections. He said:

> It was hard to find [physicians] to connect to that understood my background and some of the unique obstacles I faced as a first-gen Latino medical student. It wasn't apathy or a lack of motivation on my part. I didn't know what I didn't know. . . . Knowledge is knowledge, so on some level, I should be able to get anybody [laughs] as a mentor, but it just wasn't as meaningful or impactful. Their journey and experiences weren't the same as mine, so in that regard, it wasn't helpful to me. And because it wasn't helpful, I feel like I missed out.

Jacob stated that he regretted not having a physician mentor before medical school:

> I feel like I should have tried harder to build that type of relationship. Having a professional . . . a practicing physician would have been clutch and aided in my success. I believe that 100%. Having a mentor would have helped me learn the ropes, expose the underground curriculum. You know . . . things I that aren't taught in the classroom.

He further stated, "having a mentor that looked like me definitely would have been beneficial. Someone who has been there before to show me the way."

Amalia described the first two years of medical school as complex because she did not know "what should be happening" regarding the resources she should be using. She further explained:

> I didn't know because I didn't have anyone to ask. Like I didn't have a cousin or whoever. My dad isn't a cardiothoracic surgeon or anything like that to ask them, "Hey, it's first year . . . What should I be looking into?" So, like, I definitely had classmates who were more familiar with some of the resources that you need to use.

She explained that "it took a while to befriend different classmates," so it was not until the second semester of her first year that a peer introduced her to valuable materials. This lack of

knowledge also impacted her ability to study effectively. Amalia stated while she "didn't fail [a] class or anything like that . . . To study efficiently, I didn't utilize certain resources that others were using."

Jacob also experienced a lack of knowledge regarding best practices for studying:

> There's just so much! You know, the school has their set of material. Like the lectures we get from the professors and their recommended textbooks, which is a lot by itself. But then there are all of these supplemental resources you can purchase from companies that are supposed to be helpful, right? There are YouTube videos and quiz websites that other medical students add to. It's just so overwhelming. I had a real hard time trying to figure out what was essential and trying to figure out what was unnecessary. There's too much information and not enough time to sift through it all. It took me a while to figure that out during first year. You have to be able to get your resource and stick with it.

Support

While the participants did suffer setbacks due to obstacles and barriers, they did have varying levels of support while navigating the first two years of medical school. Participants had support not only from their families and friends but also from their classmates. They also found support on an institutional level, whether from social events sponsored by the school or administrators. These two types of support, peer and institutional, are examined here as subthemes.

Specifically, the participants expressed that having others who looked like them as classmates, accountability partners, and study partners contributed significantly to their success in medical school. It also contributed to their sense of belonging. Eventually, as some

participants progressed through medical school, they offered the same support to students just starting.

Peer Support

Peers are essential in cultivating successful academic results. Bonner and Bailey (2006) explained the impact of a peer group:

> The peer group essentially serves as an audience, a virtual training ground to test out assumptions and ideas, strategies and plans within an encouraging and safe environment. The peer group for the [minoritized] student in college takes on an even greater level of significance in their matriculation experience. (p. 26)

Bonner and Bailey (2006) also explained that peer groups address "the need for belonging" (p. 26). Peer groups influence learning experiences by increasing "academic development, problem-solving skills, critical thinking skills, and cultural awareness" (Bonner & Bailey, 2006, p. 27).

All participants stated that they were members of social clubs on their campus. However, club and group activities may have been limited due to the pandemic at times, so most activities were only online or canceled altogether. Some participants also started new groups at their institution to fill in gaps left by other clubs.

Kyle explained that he and a peer from another regional campus started a group for Black men in medical school at their institution. He said it was "rough being one of the only Black guys there in the entire campus." Kyle explained that they started this group to help connect others for support.

Jacob explained that he decided to mentor students in lower classes informally:

> There were so few of us [Black students] during my first two years, so it was difficult to form bonds at [the] time. I said earlier that I was outgoing, but it's hard to make

> meaningful friendships with some people, especially if they don't want to. So, for me, the relationships I formed with my Black peers were the strongest. Our ties were close, so I wanted to extend that to the younger students coming up behind us. We can look out for one another and make sure we can pass down information, so maybe we can make things easier for them in ways we wished it would have been for us.

Jacob went on to say:

> It was also helpful to kind of debrief after weird incidents that happened in class. As similar as we are in terms of our academic backgrounds with our White peers, we connect on another level with the people who look like us. We have a deeper understanding of what it means to be like us in this environment.

Robert explained that having peers with similar backgrounds as his was beneficial:

> With always being in predominately White spaces, it's rare to have many people who look like me. As I've gotten older and progressed through medical school, when I find people who are similar to me, I'm instantly gravitating towards them. We relate more. We have an understanding due to a shared cultural identity. And it just feels so good to have that type of connection. We're also accountable to and for one another.

SNMA was a club that most participants were members of and had various levels of involvement. Since SNMA is nationally recognized, membership is based on where they attend medical school. Ashley explained that her SNMA chapter is active and found her membership beneficial while navigating the first two years of medical school. She described her experience:

> We had a couple of activities where we met them in person. We did meetings online. . . . Towards the end of the year, [the Board Members] did something for us because we have all of these demands on us like our finals. They helped us and made sure we knew what

> the clinical skills were. . . . They have been very involved, not with just the students but also in the community and outreach.

Additionally, her SNMA chapter brought in "speakers to talk about race disparities" and would host workshops to help members with their national board exams. For Ashley, it served as a vehicle for academic enrichment.

Jacob was also a member of his school's SNMA chapter and spoke about some of the more considerable organizational benefits:

> SNMA has been great to be a part of. I was a member of the undergrad version (MAPS) in college, so I knew a lot about SNMA and didn't hesitate to join when I started medical school. The social networking and conferences are valuable for sure. They've allowed me to connect with other students at other schools, although not as much now that I've started school. We've been able to talk about ideas for programming and workshops for our respective campuses. The conferences are both regional and national, and each offer something a little different, but still, the same type of fellowship atmosphere is present.

Taylor also spoke about the benefit of her SNMA membership. She was elected president of her chapter's club, so she was very involved in planning the programming and workshops. Her chapter was tiny, so participation was not as great. She explained:

> Historically it is mostly like a club for Black medical students. So, you can imagine, given [what] the numbers [are], that it's not the most active. We . . . are trying to change that because . . . well, one they didn't really know about it. Two, they probably think, "Oh, if I'm not African American, I can't join." So, we are really trying to change that perspective and then like include more people.

To increase awareness of SNMA's existence on her campus, she aimed to improve networking with other Michigan chapters.

At Amalia's institution, her SNMA chapter advocated for URM students, specifically the dismissal of their Assistant Dean of Student Affairs, a Black woman. Amalia explained that when the school set out to fill this role, only one of the three individuals brought in to interview for the position was of color. Neither of the applicants had a demonstrated background in diversity efforts. The students did not feel that the institution took this issue seriously, so her SNMA chapter advocated for the students. She stated they could meet with school leadership and be involved in the interview process.

While Robert was a member of SNMA, he was also a member of LMSA at his medical school. LMSA is similar to SNMA in operation, but the club functions specifically to advocate for Hispanic and Latina/o/x medical students. Robert explained that LMSA also held workshops for its members and social events when feasible:

> So yeah, LMSA held events targeted specifically for our community. It's not very big compared to the SNMA chapter here, but we've done some great work for the surrounding community. From blood pressure screenings when we were able to because of COVID to diabetes informational meetings. It has also been great for me because I can network with others with my background, which was something I was lacking outside of my own family.

Perseverance. Although questions about motivation and persistence were not asked directly, each participant explained how they persevered in facing barriers and obstacles. Ashley, becoming visibly lighter in her mood, described how having the support of her husband during this time was vital, saying:

> If I didn't have my husband, I don't know how I would have made it through the first year. . . . It just made me realize the importance of having a partner and having a supportive partner, and choosing the right partner.

Taylor, Amalia, Jacob, and Robert each described similar instances where family, their parents specifically, were motivating factors in their plight to keep on this path.

Kyle, while having the support of his family to motivate him, was also inspired by proving naysayers wrong. While recounting an instance early on in medical school, Kyle, gesturing with his hands while he spoke, explained how he tore his Achilles tendon playing basketball and ran the risk of not passing one of his courses:

> So, I was in a cast, and I wasn't allowed to be in the anatomy lab the entire semester, so I couldn't really see the things that we were learning. As much as like the textbook gives you these beautiful pictures, I didn't really see a body 'cause I couldn't go in, and then it was unfortunate because even [for] our lab practicals, where they mark certain points like, what is this on a human body, I've never seen it before. So, it made it so much harder to learn, and I'm just like, "Hey, this is a complete accident, this wasn't intentional, this is not a reflection of my abilities in the sciences," and it just turned into "Hey, look at other careers." So that's sort of fueled me like, "all right." I took it personally, as simple as that.

Kyle stated that that was a conversation he had held onto since that day. Grinning widely, he vowed to reach out to that faculty member after graduating from medical school to boast about how well he turned out.

Institutional Support

While all participants were members of student-run groups for support, some also described how their institution supported them during their first two years of medical school. Despite the lack of diversity in administrative and faculty roles at her institution, Taylor did not feel that they were not supportive of her or other students of color specifically. However, sitting up straighter in her chair, she elaborated that it was more of an individual effort than an institutional one. She explained that one staff member, a White woman, was "awesome" and was "really [intentional] about how she creates these spaces" for her and her peers to "feel more comfortable." This staff member was also a part of a diversity committee "committed to providing diversity within the college":

> But not all the people I think . . . know about her, but then again, I guess if you don't care about diversity, you wouldn't know. But she's also really great, too. Actually, I'm a student rep on the diversity committee . . . [and] that entire committee is comprised I think about like 20 faculty. All of them are really committed to . . . creating those spaces for people to feel more comfortable.

Taylor's school also hosted wellness events to help ease the burden on students' mental health. She described these events as fun and a way to get their minds off of school work and unwind:

> I know that in the fall, they are trying to plan a big come back thing. Our social chair, though, has been doing a great job. She has been putting on this thing called MMM, so Med-students Mindfully Mingling. Where you meet with three or four of the med students, like just go out to lunch or do something fun around the city, so that's the main thing that they've been doing. I think that's been nice. It's just been nice to meet people.

Kyle also described how his institution made sure to implement similar programs for its students.

Amalia highlighted an experience at her institution where the school did not support URM students effectively regarding hiring a new Assistant Dean of Student Affairs. While students were involved in the interview process, she explained that what the institution said did not align with their actions. Specifically, "you can't say that you're hearing these complaints and these concerns that we have regarding diversity, and then you let go of the one Black administrator who kind of champions diversity for students?" During the talks with school leadership, there was a proposal to incorporate diversity training into the curriculum and a designated diversity role within the administration. She explained that it did not happen and that there was a lack of follow-through on the part of the school, and it appeared that this was not a priority.

Robert and Jacob described similar views on their respective institution's level of support. Jacob explained:

> My school did not do enough to support us, to be honest. I mean, there were general things, you know, for mental health and things like that for the broader medical school demographic. But nothing substantial for Black students or students of color. Our experience is different, so they should have programs tailored to that. They missed the mark entirely, in my opinion.

Robert shared:

> [My school] maybe made posts on social media or the official newsletter they email about like Black history month or Hispanic heritage month, but beyond that? Nothing really that made me feel like they were truly invested in our cultures. It just seemed like it was something to check off their list.

Advice

Each participant provided a piece of advice to a future URM medical student who may be interested in a career in medicine and what it takes to succeed in medical school. They also advised their institution on what it could do to get more URM students interested in medicine. Some also provided advice to institutions regarding better supporting URM medical students. These two categories serve as subthemes for the central theme of advice and are discussed further below.

URM Students

Amalia offered for aspiring URM medical students:

> I would definitely tell them to seek out opportunities to get experiences, whether it's scribing, research, those type of experiences, because that's the thing you can change. But, once your academics are done, once your grades are done, you can't change those. You can't change what letter grade you made in some of your sciences. But the things you can change, I definitely encourage you to [seek those experiences out].

She also stressed the importance of not quitting if you were denied admittance at first. She says, "If you are for sure this is what you want to do, then I would say keep pursuing it, don't be discouraged." Kyle offered this to future URM students about what it means to be in medical school:

> It means people may not expect you to be in that position, which is kind of good and bad. People can be pleasantly surprised, you know, to see you there. I've heard a lot of patients . . . can get emotional at times when they see a student of color training to be a doctor, so it's a big responsibility, and I would say stay confident, and that it's something that you are able to accomplish and no one on this planet can tell you otherwise.

Further, Kyle stated that it is crucial to construct a support system, whether with other classmates or networking with physicians.

Taylor offered advice to a future underrepresented medical student on what it means to be underrepresented, saying, “there’s just more of a responsibility” to “represent and . . . to create those spaces” for dialogue with others. However, she explained that to implement change, “it really shouldn’t be on students to do that, but someone has to do it, right?” Taylor stated, “We come to medical school to learn how to be physicians.” They should not feel obligated to “be social activists” to see change. Robert offered these words for future underrepresented minoritized medical students:

> They shouldn’t be afraid to ask for help or to reach out to other students, even if they don’t look like you. You really have to shed some of your pride and acknowledge, “I don’t know everything, but so-and-so seems to know more.” I really set myself behind by not being more open to working with my classmates.

When asked about what would be helpful to another Black student interested in attending her medical school, Ashley stated:

> Academically, I would tell them, “stay ahead, don’t fall behind” . . . I would tell them, “stay connected to your group. Not just Black students” . . . And “don’t isolate yourself, whether you find more connection with minority students or not” . . . “Don’t have pride enough where you don’t reach out and do it all on your own.”

Amalia also emphasized to current underrepresented minoritized medical students that they should be active participants in their medical education, commenting specifically:

> Seek out the people that came before you, fourth years, even people who've already graduated, to just to get a better understanding of the game plan that you need to follow. It's not as simple as just going to class.

Amalia also noted that "if you're a Black person, don't be afraid to talk to non-Black people about some of these resources," drawing on her own experiences. Lastly, she said not to set yourself apart from your class just because you do not see people who look like you:

> Don't view it as discouragement; just use it as your chance to open the door for the next person, the next Black kid. In order to be successful at doing that, you can't withdraw. Make connections with classmates that are wanting to make connections with you. . . . It's so easy to do that, to feel like, "oh, I'm the only one." Literally, I was the only Black girl in that group, and I was like, "Oh Lord, I can't wait 'till this is over." But you just get through it and connect with who you can connect with within the group.

Administration

Ashley also stated that the institution "need[s] more Black faculty" because "being able to see yourself in a role" would be beneficial. Additionally, she would advise her school to "hire more educators of color, women educators," as this would be a practical resource for all students. Robert asserted that he believed his institution could have done more to help his White peers by implementing meaningful coursework on social justice issues and health disparities. He elaborated:

> Like I said before, I'm not really comfortable being a social activist, publicly anyway, if that makes sense. I just don't feel that there are enough safe spaces to have the type of nuanced conversations some folks aren't ready for. I don't feel like I should have to shoulder the burden of educating others on issues unique to people of color. It shouldn't

> be our responsibility. We need educators who are qualified to facilitate these kinds of courses because, ultimately, this will. . . . impact the future patients we will treat.

Jacob added:

> Yeah, we really need more people who are qualified to lead conversations regarding race in medicine. We need people to help give us, and quite frankly some of our White peers, because I don't really see this as a Black or brown person's issue, the tools to break down barriers and solve these issues. There's no room for people to get defensive or uncomfortable. This is ultimately for the good of our patients and will lead to better health outcomes.

Conclusion

In this chapter, the data were analyzed and reduced into themes described in chapter three. The participant experiences were organized into codes, and three themes emerged from the data: barriers and obstacles, support, and advice. Two subthemes were also derived from the data within each central theme: first in family, lack of knowledge, peer support, institutional support, advice to URM students, and advice to the administration. In the next chapter, the data were analyzed through the theoretical frameworks of critical race theory and belonging, as described in chapter two.

CHAPTER 6

DISCUSSION

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. In this chapter, the data were analyzed through the theoretical frameworks described in chapter two: critical race theory and belonging. Morgan (2013) explained:

> Viewing the data through a CRT in education lens gives insight into how race continues to be a significant factor in education inequality. The use of CRT can help identify structural and institutional racism in education and how they contribute to injustice and inequity for [minoritized students]. (p. 205)

Critical Race Theory

As discussed in chapter two, CRT has been defined by a few basic tenets. Those tenets are the ubiquity of racism in American culture, interest convergence, the notion that White people have been recipients of civil rights legislation, and counter storytelling (Delgado & Stefancic, 2017; Hartlep, 2009; Ladson-Billings, 1998). In this study, two tenets yielded data worth further exploration: counter storytelling and interest convergence.

Counter Storytelling

Esposito (2011) explained:

> In CRT, researchers often rely on counter storytelling through the collection of narratives. Such an approach recognizes the lived experiences of those marginalized by race whose stories have often been silenced by a dominant paradigm. Counter stories, then, are utilized to challenge dominant discourses. (p. 146)

Through counter storytelling, the "ability to unlearn beliefs that are commonly believed to be true" can take place (Hartlep, 2009, p. 10). Without counter storytelling, accurate and factual stories from marginalized groups would not be shared widely. Sharing these stories publicly gives minoritized groups a way to increase an understanding of their experiences. Solórzano and Yosso (2002) further explained that utilizing a "majoritarian story distorts and silences the experiences of people of color" and "make assumptions according to negative stereotypes about people of color" (p. 29).

Counter storytelling serves a variety of functions. Solórzano and Yosso (2002) described them as follows:

> (a) They can build community among those at the margins of society by putting a human and familiar face to educational theory and practice, (b) they can challenge the perceived wisdom of those at society's center by providing a context to understand and transform established belief systems, (c) they can open new windows into the reality of those at the margins of society by showing possibilities beyond the ones they live and demonstrating that they are not alone in their position, and (d) they can teach others that by combining elements from both the story and the current reality, one can construct another world that is richer than either the story or the reality alone. (p. 36)

The authors also point out that counter storytelling differs from telling a fictitious story, and there is no situation where characters are made up or involved in imaginary cases. Instead, the

study participants' stories are from real incidents and "actual empirical data" (Solórzano & Yosso, 2002, p. 36).

Most study participants were aware of stereotypes or preconceived notions about who they were as students based on their URM status. Some expressed vigilance about breaking down negative labels and presenting themselves as a credit to their race instead of a discredit. Kyle spoke about how his undergraduate education gave him the tools to be an "educated Black man" unapologetically:

> I went to Morehouse because I went to a predominantly White high school in Ohio, and I needed a drastic change from that, and I feel like . . . where I went to school, they gave you the education, but they didn't prepare you to be an educated Black man. That's where I feel like Morehouse sort of gave you those intangibles. It's like, "Hey, we'll give you this education, but this is how you navigate being maybe the only educated person of color in the room." So, Morehouse is super supportive, love everything I had going on there; great foundation. When I got to grad school and higher levels of education, when it was less people that look like me, that's when I kinda got a little bit more adversity in terms of my progression to medicine. In grad school, I didn't pass one of our anatomy classes, and I met with the program director . . . the first [thing] he said was, "You need to think about other careers outside of medicine." And I have not forgotten that to this day.

Robert spoke about how it was vital for him to see people who looked like him and to be a role model for URM students coming up after him:

> It's so stupid, really, when you think about how your actions reinforce stereotypes. I'm one person. How am I responsible for a whole culture of people? So, I try to keep that in

> mind sometimes, but I also try not to let that hold me back. I also want to be a good role model for other Latino students who may be interested in pursuing this [career field]. I want them to see that "if I can do it, you can too!" I know how hard it is to be the only one and how difficult it is to imagine yourself in a space with so little of us represented. I hope that when it's all said and done, I can encourage others to apply to medical schools and pursue this [career field] with the confidence their White counterparts do. I hope that when they see me, they see themselves.

Despite barriers or obstacles that may be attributed to his race, Jacob expressed a longing to fight negative stereotypes about Black students by doing well academically:

> I was really hard on myself at first because I wanted to prove that I belonged [in medical school]. I wanted to prove that I could handle the workload. I wanted to prove that I could excel. I wanted to prove that Black people could excel. But it was too much pressure, unnecessary pressure. I had to let that go. I know that I've made a huge step by just being here.

Ashley and Robert had previously acknowledged that they did not view their race or ethnicity as a barrier or obstacle. They admitted that any limitation they had was because of their actions. They chose to thrive in their academic environments to achieve academic success.

Interest Convergence

Interest convergence is a tenet that is a critical component of CRT that helps explained the permanence of racial inequality. Hartlep (2009) explained that interest convergence "is the notion that Whites will allow and support racial justice/progress to the extent that there is something positive in it for them, or a 'convergence' between the interests of Whites and non-Whites" (p. 7). For instance, there may be agreement among those in power that certain practices

and policies should be implemented to end discrimination or oppression against marginalized groups. Yet, those people may not want to part with their perceived privilege or power to achieve the desired outcome of equality. Put another way, "the interest of Blacks in achieving racial equality will be accommodated only when it converges with the interests of Whites" (Bell, Brown v. board of education and the interest-convergence dilemma, 1980, p. 523). Further:

> Racial remedies . . . if granted, will secure, advance, or at least not harm societal interests deemed important by middle and upper class Whites. Racial justice – or its appearance – may, from time to time, be counted among the interests deemed important by the courts and by society's policymakers. (Bell, Brown v. board of education and the interest-convergence dilemma, 1980, p. 523)

While discussing the U.S. Supreme Court's decision in Brown v. Board of Education of Topeka, 347 U.S. 483, which ruled that U.S. racial segregation in public schools was unconstitutional, Bell (1980) explained how it related to interest convergence:

> Whites may agree in the abstract that Blacks are citizens and are entitled to constitutional protection against racial discrimination, but few are willing to recognize that racial segregation is much more than a series of quaint customs that can be remedied effectively without altering the status of Whites. The extent of this unwillingness is illustrated by the controversy over affirmative action programs, particularly those where identifiable Whites must step aside for Blacks they deem less qualified or less deserving. Whites simply cannot envision the personal responsibility and the potential sacrifice . . . that true equality for Blacks will require the surrender of racism-granted privileges for Whites. (pp. 522-523)

Shih (2017) explained how interest convergence is best to be observed at higher education institutions:

> Interest convergence helps to explain diversity policies once we understand that institutions will lose more than prestige if they are perceived as unwelcoming or even hostile to students of color. . . . Quite simply, it is in an institution's financial interest not to be seen as racist. (p. 3)

Several participants spoke about how their school released statements in the wake of racist incidents in the news or in their local community. Ashley talked about town hall meetings at her school to address a racist mnemonic a classmate came up with for a disorder they were learning about in class. She felt the school was performing to appease the students and did not fully address the issue. Ashley was told that the classmate would not have this incident "put into her file as a violation . . . it was just something they talked about [informally]".

Taylor discussed how her institution organized town hall meetings to discuss the Black Lives Matter movement and the events surrounding the murder of George Floyd in 2020:

> So that like got brought up quite a few times, and then they had a Friday session where people could go and [have] a safe space to talk. So yeah, there were opportunities for that. I actually . . . didn't go to any of them. Because I'm not . . . I don't know, I feel like when it comes to those things, I'm not particularly vocal about it just 'cause it's just very triggering, and I just don't really like to talk about it in open spaces like that. But from what I heard, they were helpful.

Taylor went on to say:

> I do think that the administration . . . whenever like something happened, they always released a statement. I don't know how much the statements do. There are certain faculty

> that I think really do create spaces like for support, but it's really individual. I wouldn't say like, as a whole, the college really cares. That's not the vibe that I get. I think they wanna put out a statement just like to "save face" kind of thing.

Kyle also shared a similar instance at his school:

> But in terms of strictly from [my school], like the medical school, they had some Zoom sessions. It was also a lot of racial things going on at the time, George Floyd, that sort of stuff. So, they had Zoom sessions that let you come and vent, but they weren't really saying like, "Hey, we're providing a dinner." Or "Here, we have mental health providers that we've set up tons of sessions for you to schedule an appointment." It was really a lot of, I don't wanna say performative, but a lot of things that you do it to say you did it.

The participants saw the statements as mostly performative and given only to appease the student body. As Amalia described the firing and subsequent hiring process of a new Assistant Dean of Student Affairs, she did not feel her school took seriously the need for diversity training or a designated diversity advocate at her institution. Shih (2017) explained that "weak diversity policies fail to change the status quo today because they trade binding commitment for symbolism and good intentions" (p. 6). Cynically, Shih contended what it might take for institutions to take diversity seriously:

> This will entail making the case that [W]hite students and faculty benefit just as much from them as do their peers of color, if not more. But the core argument can no longer be the vague "compelling interest" of diversity. It must be economic. Instead of measuring qualitative outcomes such as "cultural competency" or "cognitive empathy," institutions might measure "salary upon graduation" or "promotions to full professor." Had affirmative action been consistently measured on similar merits, how much [W]hite

> people benefit from it would be common knowledge. Interest convergence offers the most sobering and viable approach for the contentious issues around diversity and inclusion. (p. 7)

Belonging

Belonging has been described as an "experience of being accepted, included, and valued by others" (Roberts, 2020, p. 661). Belonging is essential for URM students to gain access to previously inaccessible spaces. A loss of motivation and subsequently a loss in and to achievement are outcomes that researchers have found when URM students do not have a sense of belonging in academic settings (Haggins, 2020; Walton & Cohen, 2007). Several instances can undercut the sense of belonging to URM students and contribute to feelings of inferiority (Haggins, 2020).

Kyle explained that medical schools need to do better to support underrepresented students as a whole:

> Don't invite us into a White space and say, "Oh, we're doing this great thing for diversity." You have to give us room to be ourselves, to be Black at these schools, and to also foster our development. We're not your average medical student. We are very Black or Hispanic or Latin or whatever. . . . Give us the resources, the sort of space, and the sort of support that we need to foster and create these environments that are safe for us.

Jacob argued that while he made an effort to connect with his peers and eventually made inroads, it was challenging to make some of those connections initially:

> Oh man . . . it was hard at first! I think of myself as a strong person, mentally, but feeling excluded is so hard on a person. It just makes you feel so small. Like a little kid [chuckles], but man being on the outside is so hard. Not having peer support makes you

> feel unwanted. It makes you feel like you don't belong. Like, "what are you even doing here?" Compound that with not performing well academically. Game over. It took a lot to overcome those feelings in the beginning.

Robert also expressed similar feelings of not belonging:

> I assumed I would make friends or actually associates [smiles] easily. I figured the competition would lessen a bit because, "Hey, we all made it!" But that was not the case. I did not feel like I belonged until I found my group. Until then, I felt unsettled and did not feel connected to my peers. This was really hard, too, because I already felt like I was lost when I was studying, so not having my group really made things difficult for me.

Conclusion

This chapter analyzed the data through the theoretical frameworks described in chapter two: critical race theory and belonging. Counter storytelling and interest convergence were two tenets of CRT that were further explored based on this study's data. Counter storytelling was used to explain the experiences of minoritized students, while interest convergence was used to describe the permanence of racial inequality. Belonging was another theoretical framework through which the data were examined. The next chapter discusses recommendations, future research, and limitations.

CHAPTER 7

RECOMMENDATIONS, FUTURE RESEARCH, AND LIMITATIONS

The purpose of this study was to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. This chapter outlines recommendations for increasing the representation of URM students at medical schools. Lastly, the focus of future research is described, as well as the limitations of this study.

Recommendations

I outline four recommendations based on this study's findings and data from the literature to support it. The first recommendation is to increase diversity to grow the number of underrepresented students. Next, provide mentoring for faculty to attract and retain prospective underrepresented faculty members. Finally, implement alternative admissions criteria and alternative admissions processes.

Increase Diversity

Reframing diversity as vital to an institution's effectiveness is required for the success of academic health centers. Research stated that diversity is about how academic medicine channels the talent and participation of diverse groups of people to address challenges (Smith, 2012). A key lever of change is how leaders understand diversity to be relevant to the institution. This understanding requires the institution to address its standards of professional preparation in

medicine. Diversity initiatives must tackle disability, gender, gender identity, immigration, sexual orientation, social class, race, and religion.

To maintain and increase minoritized student enrollment, Campbell et al. (2018) asserted that medical schools need to implement programs and policies to grow the number of students from underrepresented minoritized groups. Scholars have found that the success of bridge programs was instrumental in increasing diversity within medical school student bodies. These programs may admit students who are not as competitive, primarily URM students, but during a short bridging program, allow them to develop skills necessary to excel in medical school.

Some students who are not highly competitive for entry into medical school but who have demonstrated motivation for medicine through volunteer and service experience, have a strong work ethic, and develop leadership skills can succeed in medical school (Campbell et al., 2018). Programs like these may be used to help increase URM student representation within medical schools. Research shows that URM physicians care for poor and minoritized patients in more considerable sums than non-URM physicians, and this action will increase access to care for those groups.

Bailey and Willies-Jacobo (2012) demonstrated that URM students were more prone to be interested in a curriculum that would prepare them to thrive in underserved populations. They also showed that the degree of diverse student population affects which institutions students attend. The “relationship between curriculum and diversity” is a “part of a positive feedback loop,” which ultimately leads URM students to higher enrollment and graduation rates and promotes the “development of physician leaders committed to underserved populations” (Bailey & Willies-Jacobo, 2012, pp. 1537-1538).

Further research examined barriers to pursuing a medical career for URM undergraduate students to reduce their impact (Freeman et al., 2016). Many of these students were attending institutions where premedical resources were limited. Researchers have suggested outside organizations, programs, and individuals should be enlisted to enhance the available resources in this situation. Another perceived barrier for URM undergraduate students is the lack of family support. These students claim their families want them to thrive but do not fully understand the preparation process, which is problematic. Scholars suggest that outreach efforts to parents of these students could help, targeting them as early as high school.

A third perceived barrier is the absence of advising, access to information, and mentoring of URM undergraduate students (Freeman et al., 2016). These reasons highlight the importance of improved distribution and resources to schools, especially for schools that do not have direct connections to medical schools. The last perceived barrier is societal. Societal barriers include the lifestyles of physicians and how to balance work and life. Specifically, when to start significant relationships and when to start families were concerns. Researchers suggest advocacy and policy interventions, specifically related to the number of hours resident physicians are required to work.

While the Supreme Court has ruled that race-conscious admission policies are permissible, the change in the U.S. political landscape may affect future decisions by the Court (Thomas & Dockter, 2019). In the meantime, medical schools should increase or maintain backing for STEM-based academic development programs. Programs like this have assisted URM students by providing them with exposure to healthcare careers, mentoring, and networking. Moreover, they help medical schools to recognize applicants who are qualified.

Medical schools can also nurture the success of minoritized students by being cognizant of the institutional environment (Thomas & Dockter, 2019). Accomplishing this includes using surveys of faculty and students that the AAMC has validated. Institutions can also follow student demographics and compare URM admission rates with fluctuations in institutional climate.

Lastly, medical schools can implement an admission practice that deliberates race and socioeconomic status (Thomas & Dockter, 2019). These two factors are not the same; however, they intersect and impact education success. Research has shown that this methodology will support minoritized students "overcome the intergenerational barriers created by race, ethnicity, and poverty," which will cultivate a "culturally competent healthcare workforce," as well as a diverse one (Thomas & Dockter, 2019, p. 476).

Schools that admit and graduate URM students beyond national averages may offer valuable lessons for other institutions. Researchers have worked to identify the strategies these schools have implemented that could lead to the success of URM students in different contexts (Dickins et al., 2013). For example, these institutions implement a robust collaborative learning climate. Many students have asserted that the class's support system created comfort within the learning space. The class's genial nature made students feel that they were a part of a community, which scholars believe led to class cohesiveness. Pass/fail evaluation systems have also been utilized, enhancing the class's collaborative learning climate. Students do not feel as competitive among their peers without the traditional grading scale.

Lastly, these institutions require their students to take a healthcare disparities course (Dickins et al., 2013). This course provides a practical curriculum to broaden students' understanding of healthcare disparities. The course becomes a place for people of different

backgrounds to speak about their experiences to learn. In this atmosphere, students can learn alongside diverse peers and can learn from people who are different.

Institutions are also called on to increase URM faculty representation. Institutions without programs explicitly for retention and promotion have reported high attrition levels, even with successful recruitment (Kaplan et al., 2018). When asked about low retention, a URM faculty participant stated:

> I think people feel like what am I going to do there? There's nobody there that's like me. And so, does that mean that the climate is not good? I think we are doing really, really great things to try to make the institution friendly to underrepresented minorities . . . students, residents and faculty. But it's just that we've lost so many. (Kaplan et al., 2018, p. 60)

Increasing the number of URM faculty would attract other prospective URM faculty and eventually increase their representation on search committees, positively influencing the selection and hiring process.

Mentoring for Faculty

Mentoring is essential in academic and healthcare careers because it can provide knowledge and advice in their area of expertise and offer support (Lewis et al., 2016). Ethnic and racial minoritized faculty in academic medicine often feel isolated, leading to attrition in this field. Research shows that the short-term effects of mentor training, which teaches mentors how to support their mentees, positively impact their underrepresented mentees' psychological satisfaction.

Another study examined the benefits of mentoring for URM faculty (Beech et al., 2013). Scholars found that mentoring should be part of the process to boost the number of URM faculty

who pursue academic medical careers. Most mentoring programs studied showed that the participants attained promotion and reported mentoring as a beneficial factor. Obstacles to implementing mentoring programs included restricted funding, insufficient levels of participation, sizable time commitments, and trouble tackling specific challenges at the institution experienced by URM faculty early in their career. Research shows that mentoring is a valuable tool in increasing faculty diversity if the barriers can be overcome.

Kaplan et al. (2018) reported success with mentoring programs with their study participants. However, there are challenges in implementing mentoring programs when there is a small pool of URM faculty. One URM faculty participant stated that "the faculty will sometimes struggle with aligning themselves with mentors and also role models who are maybe within their ethnic group . . . it is, I think, more challenging for minorities, for underrepresented minorities, than for other folks on campus" (Kaplan et al., 2018, p. 60). Investing in mentoring programs also signals that the institution is committed to increasing diversity.

It is not enough to have a mentoring program for URM faculty; the program's duration and intensity play a role in its success. Guevara et al. (2013) found that schools with programs occurring for five or more years were associated with better improvements in URM faculty percentage than schools with a shorter existence. It is believed that these older programs needed time to mature and achieve the desired results. The authors also found that schools with more intense programs were associated with increased percentages of URM faculty.

Peek et al. (2013) found that institutions with successful strategies to increase URM faculty representation utilized social relationships and human capital (i.e., mentoring or role models). However, the authors reported that participants stated that "merely noting 'URM candidates are encouraged to apply' in job postings was an ineffective strategy. In fact, it was

commonly noted as ‘the single most ineffective strategy’” (Peek et al., 2013, p. 408). Respondents placed an increased value on department chairs who try to create interpersonal connections with URM faculty candidates.

Alternative Admissions Criteria

Another solution to increasing diversity among medical school student populations is to consider limiting the use of academic criteria (i.e., MCAT and GPA) when granting admission to medical schools (Koenig et al., 1998). MCAT scores are used because they give medical schools predictive insight into prospective students’ success. All questions used on the MCAT undergo a sensitivity review for racial/ethnic, regional, and sex bias before appearing on an MCAT test. Research shows that MCAT testing performances of minoritized groups tend to be over-predicted (predicted MCAT score was higher than the real MCAT score), and the achievements of non-minoritized groups tend to be under-predicted (predicted MCAT score was lower than the real MCAT score).

Scholars have concluded that the MCAT, combined with undergraduate GPA, is a good indicator of success in medical school, but it is not perfect (Koenig et al., 1998). Other predictor variables (i.e., communication skills and study habits) should be explored further. Ballejos et al. (2015) examined the usage of non-cognitive admission criteria (i.e., experiences) vs. cognitive criteria (i.e., MCAT or GPA) for URM students. The results demonstrated that admissions for URM students could be improved by considering non-cognitive criteria more than cognitive criteria without compromising standards. The authors concluded that this route might help diversify the physician workforce and improve health disparities.

Other contributing factors lead to the slow growth in enrollment numbers for URM students and students from socioeconomically disadvantaged (SED) backgrounds. The AAMC

(2018) reports that URM students typically have lower undergraduate GPAs and MCAT scores than their non-URM peers. Decreased access to educational resources, lower-quality schools, a higher likelihood of employment throughout undergraduate school, and no financial resources for test preparation programs may contribute to the lower academic metrics of URM and SED students. Students who hold jobs during college may not have the time for activities outside of class, such as research or volunteer work. These are essential enriching life experiences to have on one's resume for medical school admissions.

One way to increase SED enrollment numbers would be to use an affirmative action program based on social background or class. Fenton et al. (2016) used socioeconomic figures from the American Medical College Service (AMCAS) application to adjust GPAs and MCAT scores for students identified as coming from a SED background. Their goal was to assess whether medical school admissions committees could use this approach to discover a pool of academically qualified SED applicants to diversify their student populations.

After doubling the adjustment of academic metrics for SED prospective students, Fenton et al. (2016) found that the representation in a given class by URM students increased by about 5% and tripled for SED students. The authors demonstrated that this systemic method could eliminate disparities for SED and URM students in medical school classes. Increasing ethnic and racial diversity will lead to a more diverse physician workforce. The authors also suggest that this could reduce disparities that continue despite using the AAMC's Holistic Review Project (Fenton et al., 2016; Association of American Medical Colleges, 2010). Additionally, this method would circumnavigate laws banning race-conscious admissions policies, as the Supreme Court has upheld classifications based on socioeconomic status if the ends justify the means (Kaplin & Lee, 2014).

However, some may take issue with the appearance of admitting students who are not prepared academically for medical school. Fenton et al. (2016) demonstrated results that should alleviate those concerns. The class demographics used in the study showed that the minimum GPA and MCAT scores of the admitted students under the metric adjustment were 2.97 and 27, respectively. The AAMC (2018) has data that show that students with these measurements have a 79% and 88% probability of graduating in four and five years, respectively. The authors stated that the most academically uncertain students admitted under the adjusted metrics method are likely to graduate and contribute to the healthcare system (Fenton et al., 2016).

Alternative Admissions Process

Another aspect of the medical school application process that could help boost SED and URM enrollment numbers would be implementing the Multiple Mini-Interview (MMI; Jerant et al., 2015). The MMI is a method where trained evaluators assess candidates in a sequence of timed, structured stations, and the applicants are given a summative score at the end of the series. These stations measure skills, such as cultural awareness, integrity, and professionalism, that might be tough to glean from an application. Jerant et al. stated that the MMI is beginning to replace traditional interviews at medical schools across the country to reduce bias from interviewers seen in conventional interviews.

Jerant et al. (2015) demonstrated that URM applicants received scores like their non-URM peers. This indicates that this MMI might be less likely to penalize URM students due to interview bias. However, the study did not confirm the same for applicants from a SED background. This may be due to a lack of financial resources that would have aided their MMI preparation. Many SED students may have fewer life experiences than their more affluent peers that would have enhanced skills measured by the MMI. SED students are more likely to report

having a job during their undergraduate years; however, the skills, such as communication, critical thinking, and problem-solving, obtained from their employment did not match those required for the MMI. This would put SED applicants at a severe disadvantage.

In a follow-up study, Jerant et al. (2018) examined how interview performance, URM status, and SED status relate to medical schools' academic performance using the MMI method. More importantly, the researchers examined national licensing examination scores, such as the United States Medical Licensing Examination (USMLE) Steps 1 and 2, of URM and SED students who have completed the MMI. USMLE scores dictate the type of residency programs a medical school graduate would be competitive for and ultimately decide their specialty.

Jerant et al. (2018) also showed a distinct disadvantage for SED students. The authors found that students with high SED had poorer USMLE Step 1 scores. The correlation between SED level and Step 1 scores is not surprising because SED students tend to have lower standardized test scores. This may reflect fewer chances for test preparation due to financial reasons. The authors believe this would be a critical time for administrators to offer SED students additional academic support proactively.

Jerant et al. (2018) found no bias for URM students. This may be because URM students have received tremendous attention in research over the years. Also, biases toward URM students have been offset by a greater awareness of such biases, leading to a more significant effort to reduce them.

Another study examined a medical school that used the MMI exclusively during its selection process to see if it would enhance the student body diversity. Terregino et al. (2015) also sought to examine whether the extracurricular activities (e.g., service, clinical, and research) a student participated in varied due to ethnicity or race. The authors also examined if changing

the weight of MMI scores, academic metrics (GPA and MCAT), or extracurricular activities would influence the entering class's diversity.

The Terregino et al. (2015) study also showed that increased MMI usage and their subsequent scores as factors in granting admission might increase ethnic and racial diversity among the student body. The study also showed a slight correlation between extracurricular activities and MMI scores. The authors believed this because completing extracurricular activities is not an indicator of knowledge; instead, it symbolizes completed activities.

There are strategies that admissions committees can implement to help achieve diversity by increasing the yield of URM students. Capers et al. (2018) described several initiatives their medical school admissions committee implemented to achieve compositional diversity and its positive effects. They have since significantly increased the school's URM student population.

Capers et al. (2018) first explained the importance of creating an admissions mission statement that declares the importance of diversity:

> Not only can a mission statement provide a guidepost for each step on the front end of the medical education continuum—whom to interview, how to grade the interview, and whom to accept—but a medical school's mission statement can influence the practice patterns of its graduates. (p. 10)

Through this action, medical schools may recruit students who feel welcome and impress upon prospective students the importance of diversity in healthcare. It is also essential to keep this mission statement visible to committee members and to discuss it often.

Next, Capers et al. (2018) described changes that impacted how the committee functioned. First, voting on student admittance became anonymous instead of open voting (Capers et al., 2018). This change allowed committee members to think independently and arrive

at their decision without more senior members' undue influence. Second, the committee's size was increased to curtail potential biases that smaller groups may have amplified. The members had a broad range of experiences and perspectives in a larger group.

Adopting a holistic review of the candidate, developed by the AAMC (2013), and not disclosing academic metrics (i.e., GPA or MCAT scores) to interviewers before interviewing students are additional ways that Capers et al. (2018) explained as methods to matriculate more URM students. The holistic review is a system that requires a greater emphasis on students' experiences and personal characteristics and not solely on GPA and MCAT scores (AAMC, 2013). Moreover, by not disclosing academic metrics to interviewers beforehand, interviewee answers are not judged (negatively) by this prior knowledge.

Lastly, Capers et al. (2018) stated that including more people from minoritized groups in the selection process decreased the chances of implicit racial bias. The authors suggested mirroring the student body population they wish to create within the search committee. Capers et al. (2018) stated:

> If a class of 50% women is the goal, half of the committee should be women; if we seek a significant percentage of underrepresented minorities in the class, to the extent possible, this should be reflected in the makeup of the committees. (p. 16)

Future Research

Future research on URM students could build upon the work of this study in the form of a longitudinal study to examine the perceptions of grading processes during their clinical years, which include their third and fourth years of medical school. Future research on URM students could also focus on comparative studies addressing the experiences of URM medical students attending historically Black medical schools, Hispanic-serving medical schools, and tribally

affiliated medical schools to follow Native American medical students. Additional research could focus on the intersection of class, gender, and race and how these impact the experiences of URM students in medical school. Lastly, future research must focus on the positive attributes that contribute to URM achievement and success, not just their deficits. These positive attributes could serve as a standard for medical schools and aspiring URM physicians.

Future research should focus on ways to eradicate racial inequities in higher education. This is beyond increasing diversity based on the current practice outlined in this study's literature review. As stated in Berrey (2011):

> Instead of taking big risks through innovation, organizations more often hedge their bets through imitation. They keep their eyes on what other organizations . . . are up to, and then model their practices in the direction of where the big players seem to be headed. (p. 579)

Institutions need to be bold and creative in how they attract and retain URM medical students.

The focus on equity will allow schools to establish standard definitions of success that can connect representation with inclusion and participation (byrd, 2019). Second, it will highlight the necessity for inquiry. Lastly, the focus on equity will evoke a need for positive change, which scholars argue will require action by institutions. If institutions of "higher education [have] a role in advancing social equity, so too should the institutions that comprise it" (byrd, 2019, p. 160).

Limitations

One limitation would be the reliability of the participants. Some of the information gathered would result from retrospection on the participant's part, so it may not be entirely accurate. While I asked the students to reflect on over two years of their academic medicine

experience, there may have been instances misremembered or not thought of due to prompts I presented to them. The information shared was primarily subjective, so there is also difficulty in fact-checking all of the stories shared during the study.

Another limitation would be using medical schools within one area of the country. All participants were students from similar locations geographically, so there may not have been enough variation in experiences, although they were not from the same school. Institutions within other geographic areas of the country may have yielded different experiences due to a different ethnic or racial makeup. The participant demographic in this study was only representative of two ethnic and racial groups.

The timing of the study may also have been a limitation. While the students may have had fewer restrictions on their schedule because classes were not in session, they did not respond to requests quickly. Some students were busy with third-year clinical obligations, while others traveled for summer vacation. If the call for participants had been sent out while the students were still in classes, the response time might have been quicker, and participation may have been greater. Also, because the interviews took place during the COVID pandemic, IRB restrictions did not allow for field observations or in-person interviews. Although conducting interviews via Zoom was convenient when the interviews could be scheduled and had virtually zero travel, I was limited in what non-verbal information I could glean from a computer screen. I could only see what the participants presented to me.

Conclusion

This chapter outlined recommendations for increasing the representation of URM students at medical schools. The recommendations included increasing diversity, mentoring programs for faculty members, and alternative admissions criteria and processes. The study's

limitations were discussed next, including participant reliability, the participant locations, and the timing of the study. Lastly, the focus of future research was described.

REFERENCES

Aagaard, E. M., & Hauer, K. E. (2003). A cross-sectional descriptive study of mentoring relationships formed by medical students. *Journal of General Internal Medicine, 18*(4), 298-302. https://doi.org/10.1046/j.1525-1497.2003.20334.x

Association of American Medical Colleges. (n.d.-a). *Holistic review*. Retrieved October 15, 2019, from https://www.aamc.org/services/member-capacity-building/holistic-review

Association of American Medical Colleges. (n.d.-b). *Underrepresented in medicine definition*. Retrieved June 29, 2019, from https://www.aamc.org/initiatives/urm/

Association of American Medical Colleges. (2010). *Diversity in the physician workforce: Facts and figures 2010*. Retrieved June 21, 2019, from https://www.aamc.org/download/432976/data/factsandfigures2010.pdf

Association of American Medical Colleges. (2013). *Roadmap to excellence: Key concepts for evaluating the impact of medical school holistic admissions*. Retrieved October 15, 2019, from https://store.aamc.org/roadmap-to-excellence-key-concepts-for-evaluating-the-impact-of-medical-school-holistic-admissions-pdf.html

Association of American Medical Colleges. (2018). *Using MCAT data in 2019 medical student selection*. Retrieved January 20, 2022, from https://www.aamc.org/media/18901/download

Association of American Medical Colleges. (2019). *Diversity in medicine: Facts and figures 2019*. Retrieved March 5, 2020, from https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019

Andersen, M. (2001). Restructuring for whom? Race, class, gender, and the ideology of invisibility. *Sociological Forum, 16*(2), 181-201. https://doi.org/10.2307/685062

Bailey, J. A., & Willies-Jacobo, L. J. (2012). Are disadvantaged and underrepresented minority applicants more likely to apply to the program in medical education-health equity? *Academic Medicine, 87*(11), 1535-1539. https://doi.org/10.1097/ACM.0b013e31826d6220

Ballejos, M. P., Rhyne, R. L., & Parkes, J. (2015). Increasing the relative weight of noncognitive admission criteria improves underrepresented minority admission rates to medical school. *Teaching and Learning in Medicine, 27*(2), 155-162. https://doi.org/10.1080/10401334.2015.1011649

Bassett, A. M., Brosnan, C., Southgate, E., & Lempp, H. (2018). Transitional journeys into, and through medical education for First-in-Family (FiF) students: A qualitative interview study. *BMC Medical Education, 18*(102), 1-12. https://doi.org/10.1186/s12909-018-1217-z

Beech, B. M., Calles-Escandon, J., Hairston, K. G., Langdon, S. E., Latham-Sadler, B. A., & Bell, R. A. (2013). Mentoring programs for underrepresented minority faculty in academic medical centers: A systematic review of the literature. *Academic Medicine, 88*(4), 541-549. https://doi.org/10.1097/ACM.0b013e31828589e3

Bell, D. A. (1976). Racial remediation: An historical perspective on current conditions. *Notre Dame Law, 52*(5), 5-29. https://scholarship.law.nd.edu/ndlr/vol52/iss1/1/

Bell, D. A. (1980). Brown v. board of education and the interest-convergence dilemma. *Harvard Law Review, 93*(3), 518–533. https://doi.org/10.2307/1340546

Bell, D. A. (2003). Diversity's distractions. *Columbia Law Review, 103*(6), 1622-1633. https://doi.org/10.2307/3593396

Berrey, E. C. (2011). Why diversity became orthodox in higher education, and how it changed the meaning of race on campus. *Critical Sociology, 37*(5), 573-596. https://doi.org/10.1177/0896920510380069

Bonilla-Silva, E. (2009). *Racism without racists: Color-blind racism and the persistence of racial inequality in America.* New York: Rowman & Littlefield Publishers.

Bonner, F. A., & Bailey, K. W. (2006). Enhancing the academic climate for african american college men. In M. J. Cuyjet, *African american men in college* (pp. 24-46). Jossey-Bass.

Brosnan, C., Southgate, E., Outram, S., Lempp, H., Wright, S., Saxby, T., Harris, G., Bennett, A., Kelly, B. (2016). Experiences of medical students who are first in family to attend university. *Medical Education, 50*(8), 842-851. https://doi.org/10.1111/medu.12995

byrd, d. (2019). The diversity distraction: A critical comparative analysis of discourse in higher education scholarship. *Review of Higher Education, 42*, 135-172. https://doi.org/10.1353/rhe.2019.0048

Campbell, K. M., Brownstein, N. C., Livingston, H., & Rodríguez, J. E. (2018). Improving underrepresented minority in medicine representation in medical school. *Southern Medical Journal, 111*(4), 203-208. https://doi.org/10.14423/SMJ.0000000000000792

Capers, Q., McDougle, L., & Clinchot, D. M. (2018). Strategies for achieving diversity through medical school admissions. *Journal of Health Care for the Poor and Underserved, 29*(1), 9-18. https://doi.org/10.1353/hpu.2018.0002

Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design.* SAGE.

Delgado, R., & Stefancic, J. (2017). *Critical race theory* (3rd ed.). New York University Press.

Deo, M. (2011). The promise of Grutter: Diverse interactions at the University of Michigan law school. *Michigan Journal of Race and Law, 17,* 63-118. https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1020&context=mjrl

Dickins, K., Levinson, D., Smith, S. G., & Humphrey, H. J. (2013). The minority student voice at one medical school: Lessons for all? *Academic Medicine, 88*(1), 73-79. https://doi.org/10.1097/ACM.0b013e3182769513

Esposito, J. (2011). Negotiating the gaze and learning the hidden curriculum: A critical race analysis of the embodiment of female students of color at a predominantly white institution. *Journal for Critical Education Policy Studies, 9*(2), 143-164. ERIC https://eric.ed.gov/?id=EJ960609

Fenton, J. J., Fiscella, K., Jerant, A. F., Sousa, F., Henderson, M., Fancher, T., & Franks, P. (2016). Reducing medical school admissions disparities in an era of legal restrictions: Adjusting for applicant socioeconomic disadvantage. *Journal of Health Care for the Poor and Underserved, 27*(1), 22-34. https://doi.org/10.1353/hpu.2016.0013

Flexner, A. (1910/1972). *Medical education in the United States and Canada: A report to the Carnegie Foundation for the Advancement of Teaching.* D. B. Updyke; Merrymount Press. http://archive.carnegiefoundation.org/publications/pdfs/elibrary/Carnegie_Flexner_Report.pdf

Freeman, B. K., Landry, A., Trevino, R., Grande, D., & Shea, J. A. (2016). Understanding the leaky pipeline: Perceived barriers to pursuing a career in medicine or dentistry among underrepresented-in-medicine undergraduate students. *Academic Medicine, 91*(7), 987-993. https://doi.org/10.1097/ACM.0000000000001020

Garces, L. M., & Jayakumar, U. M. (2014). Dynamic diversity: Toward a contextual understanding of critical mass. *Educational Researcher, 43*(3), 115-124. https://doi.org/10.3102/0013189X14529814

Grant, C., & Osanloo, A. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your "house." *Administrative Issues Journal: Connecting Education, Practice, and Research, 4*(2), 12-26. ERIC https://eric.ed.gov/?id=EJ1058505

Guevara, J. P., Adanga, E., Avakame, E., & Carthon, M. B. (2013). Minority faculty development programs and underrepresented minority faculty representation at U.S. medical schools. *The Journal of the American Medical Association, 310*(21), 2297-2304. https://doi.org/10.1001/jama.2013.282116

Hadinger, M. A. (2017). Underrepresented minorities in medical school admissions: A qualitative study. *Teaching and Learning in Medicine, 29*(1), 31-41. https://doi.org/10.1080/10401334.2016.1220861

Haggins, A. N. (2020). To be seen, heard, and valued: Strategies to promote a sense of belonging for women and underrepresented in medicine physicians. *Academic Medicine, 95*(10), 1507-1510. https://doi.org/10.1097/ACM.0000000000003553

Hartlep, N. (2009). *Critical race theory: An examination of its past, present, and future implications.* ERIC https://eric.ed.gov/?id=ED506735

Hung, R., McClendon, J., Henderson, A., Evans, Y., Colquitt, R., & Saha, S. (2007). Student perspectives on diversity and the cultural climate at a U.S. medical school. *Academic Medicine, 82*(2), 184-192. https://doi.org/10.1097/ACM.0b013e31802d936a

Hurtado, S. (2007). Linking diversity with the educational and civic missions of higher education. *Review of Higher Education, 30*(2), 185-196. https://doi.org10.1353/rhe.2006.0070

Hurtado, S., & Ruiz, A. (2012). *The climate for underrepresented groups and diversity on campus.* Los Angeles: UCLA Higher Education Research Institute. https://heri.ucla.edu/briefs/URMBriefReport.pdf

Hurtado, S., Alvarez, C., Guillermo-Wann, C., Cuellar, M., & Arellano, L. (2012). A model for diverse learning environments. In J. Smart, & M. Paulsen, *Higher education: Handbook of theory and research* (pp. 41-122). Springer, Dordrecht. https://doi.org/10.1007/978-94-007-2950-6_2

Jayakumar, U. M. (2008). Can higher education meet the needs of an increasingly diverse and global society? *Harvard Educational Review, 78*(4), 615–651. https://doi.org/10.17763/haer.78.4.b60031p350276699

Jerant, A., Fancher, T., Fenton, J. J., Fiscella, K., Sousa, F., Franks, P., & Henderson, M. (2015). How medical school applicant race, ethnicity, and socioeconomic status relate to multiple mini-interview-based admissions outcomes: Findings from one medical school. *Academic Medicine, 90*(12), 1667-1674. https://doi.org/10.1097/ACM.0000000000000766

Jerant, A., Henderson, M., Griffin, E., Talamantes, E., Fancher, T., Sousa, F., & Franks, P. (2018). Medical school performance of socioeconomically disadvantaged and underrepresented minority students matriculating after a multiple mini-interview. *Journal of Health Care for the Poor and Underserved, 29*(1), 303-320. https://doi.org/10.1353/hpu.2018.0021

Kaplan, S. E., Gunn, C. M., Kulukulualani, A. K., Raj, A., Freund, K. M., & Carr, P. L. (2018). Challenges in recruiting, retaining and promoting racially and ethnically diverse faculty. *Journal of the National Medical Association, 110*(1), 58-64. https://doi.org/10.1016/j.jnma.2017.02.001

Kaplin, W., & Lee, B. (2014). *The law of higher education* (5th ed.). Jossey-Bass.

Koenig, J., Sireci, S., & Wiley, A. (1998). Evaluating the predictive validity of MCAT scores across diverse applicant groups. *Academic Medicine, 73*(10), 1095-1106. https://doi.org/10.1097/00001888-199810000-00021

Ladson-Billings, G. (1998). Just what is critical race theory and what's it doing in a nice field like education? *Qualitative Studies in Education, 11*(1), 7-24. https://doi.org/10.1080/095183998236863

Lewis, V., Martina, C. A., McDermott, M. P., Trief, P. M., Goodman, S. R., Morse, G. D., LaGuardia, J. G., Sharp, D., & Ryan, R. M. (2016). A randomized controlled trial of mentoring interventions for underrepresented minorities. *Academic Medicine, 91*(7), 994-1001. https://doi.org/10.1097/ACM.0000000000001056

Ludmerer, K. M. (2010). Understanding the Flexner Report. *Academic Medicine, 85*(2), 193-196. https://doi.org/10.1097/ACM.0b013e3181c8f1e7

Lysaght, Z. (2011). Epistemological and paradigmatic ecumenism in “Pasteur’s Quadrant": Tales from doctoral research. *Third Asian Conference on Education.* Osaka. http://papers.iafor.org/wp-content/uploads/conference-proceedings/ACE/ACE2011_proceedings.pdf

Matsuda, M. J. (1991). Voices of America: Accent, antidiscrimination law, and a jurisprudence for the last reconstruction. *Yale Law Review, 100*(5), 1329-1407. https://doi.org/10.2307/796694

Merriam, S., & Tisdell, E. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Morgan, A. L. (2013). Critical race theory: A counternarrative of African American male medical students attending predominately white medical schools (Order No. 3561013). *Available from ProQuest Dissertations & Theses A&I.* https://ezproxy.indstate.edu/login?url=https://www.proquest.com/dissertations-theses/critical-race-theory-counternarrative-african/docview/1367170417/se-2

Morris, N. (1995). *Puerto Rico: Culture, politics, and identity.* Praeger.

Morrison, E., & Grbic, D. (2015). Dimensions of diversity and perception of having learned from individuals from different backgrounds: The particular importance of racial diversity. *Academic Medicine, 90*(7), 937-945. https://doi.org/10.1097/ACM.0000000000000675

Orom, H., Semalulu, T., & Underwood, W. (2013). The social and learning environments experienced by underrepresented minority medical students: A narrative review. *Academic Medicine, 88*(11), 1765-1777. https://doi.org/10.1097/ACM.0b013e3182a7a3af

Page, K., Castillo-Page, L., Poll-Hunter, N., Garrison, G., & Wright, S. (2013). Assessing the evolving definition of underrepresented minority and its application in academic medicine. *Academic Medicine, 88*(1), 67-72. https://doi.org/10.1097/ACM.0b013e318276466c

Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). SAGE.

Peek, M. E., Kim, K. E., Johnson, J. K., & Vela, M. B. (2013). "URM candidates are encouraged to apply": A national study to identify effective strategies to enhance racial and ethnic faculty diversity in academic departments of medicine. *Academic Medicine, 88*(3), 405-412. https://doi.org/10.1097/ACM.0b013e318280d9f9

Pololi, L. H., Evans, A. T., Gibbs, B. K., Krupat, E., Brennan, R. T., & Civian, J. T. (2013). The experience of minority faculty who are underrepresented in medicine, at 26 representative U.S. medical schools. *Academic Medicine, 88*(9), 1308-1314. https://doi.org/10.1097/ACM.0b013e31829eefff

Roberts, L. W. (2020). Belonging, respectful inclusion, and diversity in medical education. *Academic Medicine, 95*(5), 661-664. https://doi.org/10.1097/ACM.0000000000003215

Saha, S., Guiton, G., Wimmers, P. F., & Wilkerson, L. (2008). Student body racial and ethnic composition and diversity-related outcomes in US medical schools. *Journal of the American Medical Association, 300*(10), 1135-1145. https://doi.org/10.1001/jama.300.10.1135

Salkind, N. (2010). *Encyclopedia of research design.* SAGE. https://dx.doi.org/10.4135/9781412961288

Sánchez, J.P., Peters, L., Lee-Rey, E., Strelnick, H., Garrison, G., Zhang, K., Spencer, D., Ortega, G., Yehia, B., Berlin, A., & Castillo-Page, L. (2013). Racial and ethnic minority medical students' perceptions of and interest in careers in academic medicine. *Academic Medicine, 88*(9), 1299-1307. https://doi.org/10.1097/ACM.0b013e31829f87a7

Shih, D. (2017, April 21). *A theory to better understand diversity, and who really benefits*. Retrieved May 16, 2022, from Code Switch: https://www.npr.org/sections/codeswitch/2017/04/19/523563345/a-theory-to-better-understand-diversity-and-who-really-benefits

Skochelak, S. E., Stansfield, R. B., Dunham, L., Dekhtyar, M., Gruppen, L. D., Christianson, C., Filstead, W., & Quirk, M. (2016). Medical student perceptions of the learning environment at the end of the first year: A 28-medical school collaborative. *Academic Medicine, 91*(9), 1257-1262. https://doi.org/10.1097/ACM.0000000000001137

Smith, D. G. (2012). Building institutional capacity for diversity and inclusion in academic medicine. *Academic Medicine, 87*(11), 1511-1515. https://doi.org/10.1097/ACM.0b013e31826d30d5

Solórzano, D., & Yosso, T. (2002). Critical race methodology: Counter-storytelling as an analytical framework for education research. *Qualitative Inquiry, 8*(1), 23-44. https://doi.org/10.1177/107780040200800103

Steinecke, A., & Terrell, C. (2010). Progress for whose future? The impact of the Flexner Report on medical education for racial and ethnic minority physicians in the United States. *Academic Medicine, 85*(2), 236-245. https://doi.org/10.1097/ACM.0b013e3181c885be

Student National Medical Association. (n.d.). *History*. Retrieved April 23, 2021, from https://snma.org/page/history

Sturm, S., & Guinier, L. (1996). The future of affirmative action: Reclaiming the innovative ideal. *California Law Review, 84*(4), 953-1036. https://doi.org/10.2307/3480987

Terregino, C. A., McConnell, M., & Reiter, H. I. (2015). The effects of differential weighting of academics, experiences, and competencies measured by multiple mini-interview (MMI) on race and ethnicity of cohorts accepted to one medical school. *Academic Medicine, 90*(12), 1651-1657. https://doi.org/10.1097/ACM.0000000000000960

The Latino Medical Student Association. (2021). *The Latino Medical Student Association*. Retrieved October 21, 2021, from The Latino Medical Student Association: https://national.lmsa.net/

Thomas, B. R., & Dockter, N. (2019). Affirmative action and holistic review in medical school admissions: Where we have been and where we are going. *Academic Medicine, 94*(4), 473-476. https://doi.org/10.1097/ACM.0000000000002482

Walton, G., & Cohen, G. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology, 92*(1), 82-96. https://doi.org/10.1037/0022-3514.92.1.82

Wentz, E. (2013). *How to design, write, and present a successful dissertation proposal.* SAGE.

Whitla, D. K., Orfield, G., Silen, W., Teperow, C., Howard, C., & Reede, J. (2003). Educational benefits of diversity in medical school: a survey of students. *Academic Medicine, 78*(5), 460-466. https://doi.org/10.1097/00001888-200305000-00007

Winbush, R. (2004). Brief meditation on diversity and "duhversity". In F. Hale, *What makes racial diversity work in higher education* (pp. 33-37). Sterling: Stylus.

APPENDIX A: RECRUITMENT EMAIL

Hello Prospective Participant,

This information letter describes a narrative research study that Brittany Russell, from Indiana State University, Terre Haute, IN, is conducting to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. The study will seek to answer the following questions: What are the experiences of underrepresented minoritized students in academic medicine? What strategies do underrepresented minoritized medical students use to meet the academic and social challenges of medical school?

As a participant in this study, you have self-identified as an underrepresented minoritized medical student (i.e., African American, Mexican American, Native American, or mainland Puerto Rican) who has completed the second year of medical school from an institution in Michigan or Ohio. The study will involve one 60-to-90-minute semi-structured virtual interview, with a follow-up interview at a later date, if necessary. All interviews will be audiotaped for transcription and analysis and will not be released for later publication.

There may be risks to you for this study, which are related to emotional distress that may occur when recalling certain events that may have been difficult. Breaks will be offered to you during interviews to help mitigate this. You are also free not to answer any questions and may withdraw from the study at any time during the process. A loss of confidentiality may be another risk of this study. Your responses will be kept confidential, and I, the Principal Investigator, will

remove any identifying material. Your name will not be used in the reporting of data from this study. Any data in electronic form will be stored on the computer belonging to the Principal Investigator. All data will be kept confidential and stored in the on-campus office of the Principal Investigator in a locked cabinet. All computer files will be password protected for one year after IRB approval for this study. After three years, all electronic data will be erased, and hard copies will be destroyed. Again, your participation in this study is entirely voluntary, and you are free not to participate or to withdraw at any time, for whatever reason.

There are no expected direct benefits for participating in this study. However, there are some aspirational benefits for participating in the study. Participants may feel relief by sharing their experiences (both positive and negative). Participants may also feel that they are contributing to students who come after them, even if they do not benefit directly.

For more information about this study or if you would like to participate, please contact me via email or telephone.

Thank you,

Brittany Russell, MS
Indiana State University
Brittany.Russell@indstate.edu
812-243-8388 (mobile)

APPENDIX B: INFORMED CONSENT

Informed Consent to Participate in Research Template

Indiana State University

UNDERREPRESENTATION IN MEDICINE

You are being invited to participate in a research study. This study aims to examine the impact of diversity on underrepresented minoritized students in academic medicine through their experiences and stories. This document will help you decide if you want to participate in this research by providing you information about the study and what you are asked to do. Through semi-structured interviews, you will describe your experiences as an underrepresented minoritized medical student.

Some reasons you might want to participate in this research are to help to add to the literature and propose recommendations to medical schools that may contribute to advancing a physician workforce that reflects the US population. Some reasons you might not want to participate in this research are related to the time needed for the study. Every effort will be made to be respectful of your time by sticking to agreed-upon meeting times.

This study asks you to recount events that have occurred during your first two years as a medical student via semi-structured virtual interviews. One follow-up interview may be required for clarity. You have been asked to participate in this research because you have self-identified as an underrepresented minoritized medical student, specifically African American, Mexican American, Native American, or mainland Puerto Rican.

The choice to participate or not is yours; participation is entirely voluntary. One $10 gift card to Starbucks will be provided for your time. You can decline to answer any questions or withdraw at any time from the study. If you decide to decline some activities or withdraw, you will not lose the $10 Starbucks gift card. To withdraw from the study at any time, please email me stating your request to end your participation.

Every effort will be made to protect your confidentiality by removing identifiable information from your interview responses and storing interview data on a password-protected external drive.

If you have any questions, please contact:

Brittany Russell, Principal Investigator
620 Chestnut Street, HH 149J
Terre Haute, IN 47809
812-243-8388
Brittany.Russell@indstate.edu

Dr. Kandace Hinton, Faculty Advisor
401 North 7th Street, BCOE 321C
Terre Haute, IN 47809
812-237-2897
Kandace.Hinton@indstate.edu

There are some potential risks to this study. These include emotional distress that may occur when recalling certain events that may have been difficult. A loss of confidentiality may be another risk of this study. Every precaution has been taken to reduce the risk, but there is still the likelihood of risk.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit the broader society and underrepresented minoritized students specifically in the future. Participants may feel relief by sharing their experiences (both positive and negative). Participants may also feel that they contribute to students who come after them, even if they do not benefit directly.

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

PRINTED NAME: _____

SIGNATURE: _____

Date:_____

IRBNet #: 1750623-2
Approved Date: May 24, 2021
Expiration Date: May 23, 2024
Indiana State University Institutional Review Board

APPENDIX C: INTERVIEW PROTOCOL

Medical School Experience

1. Why a career in medicine?
2. Describe your first two years of medical school.
3. Did you experience any obstacles or barriers during this time?
4. If so, how did you deal with them?
5. Who helped you through these obstacles or barriers?
6. Were these obstacles or barriers a hindrance to success?
7. Did you feel these obstacles or barriers were connected to your gender or race? How did you deal with them?
8. How were your interactions with your school's faculty?
9. Did you feel your gender or race impacted your interactions with medical school faculty?
10. How were your interactions with your classmates?
11. Did you feel your gender or race impacted your interactions with your peers?
12. How many students of color are members of your student body?
13. How many faculty members are of color at your institution?

Medical School Support

14. What type of support did you have during the first two years of medical school?

15. Describe any clubs or groups you were a member of during the first two years of medical school.
16. Describe any social networks you had that helped during the first two years of medical school.
17. Were there any school resources available during the first two years of medical school?
18. Do you have plans to become a medical school faculty member?

Advice to Future URM Student

19. What advice would you give to a URM applicant who was thinking about applying to your medical school?
20. What advice would you give URM medical students on what it takes to succeed in medical school?
21. What advice would you give to your medical school to better support URM medical students?