

RESEARCH

A Conceptual Framework for Exploring the Experiences of Underrepresented Racial Minorities in Pharmacy School

Antonio A. Bush, PhD

University of North Carolina at Chapel Hill, UNC Eshelman School of Pharmacy, Chapel Hill, North Carolina
Submitted February 4, 2019; accepted June 6, 2019; published January 2020.

Objective. To explore the social and academic experiences of students identifying as underrepresented racial minorities (URMs) in a pharmacy school, how they made meaning of their experiences, and the strategic actions they took to navigate towards degree completion.

Methods. Twenty students from a school of pharmacy within a research-intensive institution participated in semi-structured interviews. Data were analyzed through several rounds of coding. Trustworthiness procedures included the use of multiple coders, a dependability audit, and analytic memos to promote reflexivity.

Results. The study yields a conceptual model. Pre-pharmacy school factors such as pipeline programs, work experiences, family, and URM health professionals impacted students' interest in and encouragement to attend pharmacy school. Students reported experiences including a lack of diversity, feeling unwelcomed, and concerns about cultural competency and group work challenges. Students were motivated by URM faculty members, self-efficacy, and a sense of purpose. Students were inhibited by the mental impact of sociopolitical events, the pressures of representing their race/ethnicity, and feeling inferior. Students took several actions to navigate the school including "code-switching," finding solace and support with other URMs, seeking cultural competence-related experiences to complement the curriculum, and strategically remaining silent or speaking up during group work conflicts.

Conclusion. This exploratory study provides a roadmap to better understand URM students' journey to pharmacy school and experiences therein. Findings could be used by pharmacy schools to create a more inclusive environment for URM students and provide future directions for scholars pursuing diversity-related research agendas in health professions education.

INTRODUCTION

If we are determined to reduce existing healthcare disparities among racial, ethnic, and socioeconomic groups, then we must be determined to diversify the healthcare workforce. Racial and ethnic diversity among healthcare providers is fundamental to academic institutional advancement, the preparation of health science professionals, and the provision of safe and effective patient care.¹ While there has been progress towards increased racial and ethnic diversity more work is needed. For example, as shown in Table 1, the racial/ethnic makeup of most healthcare diagnosis and treating occupations such as pharmacists, physicians, nurses, and dentists remain primarily White while healthcare support roles such as dental assistants, medical assistants, and personal care

aides are more diverse.² Racial and ethnic diversity must be improved on all levels of the healthcare workforce, not only in support roles, to decrease disparities and enhance patient care.

Compounding this concern is that the United States is projected to become increasingly diverse in the coming decades. This has led to calls from various healthcare professions, including pharmacy, to examine the diversity of the workforce and educational preparation of future practitioners.³⁻⁹ Most notably, the American Association of Colleges of Pharmacy's (AACP) Argus Commission explored the following question: How can we more effectively address and serve the diversity in our membership at both the institutional and individual level and prepare our learners to serve an increasingly diverse population of consumers?⁶ Their special report, *Diversity and Inclusion in Pharmacy Education*, explored diversity and inclusion from five key perspectives: diversity in the society, application pipeline, current students, pharmacy faculty, and the AACP and the organization's member

Corresponding Author: Antonio A. Bush, UNC Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, 324 Beard Hall, Chapel Hill, NC 27599. Tel: 919-962-5032. E-mail: antonio_bush@unc.edu.

Table 1. Health Occupations by Race/Ethnicity in the United States, 2011-2015²

Variable	Non-Hispanic						
	Hispanic	White	Black	Asian	American Indian / Alaska Native	Native Hawaiian and Other Pacific Islander	Multiple / Other Race
US workforce (%)	16.1	64.4	11.6	5.3	0.6	0.2	1.8
Dentists	6.1	74.8	3	14.3	0.1	NR	1.7
Pharmacists	3.7	70.4	5.9	17.9	0.2	0.1	1.8
Physicians	6.3	67	4.8	19.6	0.1	0	2.1
Registered nurses	5.7	73.5	10.4	8.4	0.4	0.1	1.5

Abbreviations: NR=data not reported because relative standard errors (RSE) > 30

Modified from the *Sex, Race, and Ethnic Diversity of U.S. Health Occupations* (2011-2015) report from the US Department of Health and Human Services, Health Resources and Services Administration, and National Center for Health Workforce Analysis

institutions.⁶ The special report concluded that more work must be done to demonstrate the profession’s commitment to diversity.⁶

There have been several aligning calls to action in addition to the 2013-2014 Argus Commission Report.^{1,9} For example, an editorial written by Hayes provides compelling data reporting the rapid racial and ethnic diversification of the United States, accentuates the lack of minorities in healthcare, and suggests that though progress has been made, there remain opportunities to increase the recruitment and graduation rates for underrepresented minorities in pharmacy.⁹ Hayes’s piece concludes with a call to action: “The pharmacy academy must take ownership of the [underrepresented minority] issue and lead the transformation of the pharmacy workforce.”⁹

A limitation to progress in diversifying pharmacy is that existing pharmacy literature on diversity consists primarily of reports and editorials. A 2017 study reviewing contemporary diversity-related literature in pharmacy revealed the scarcity of educational research in this area.¹⁰ With only 12 research articles meeting the inclusion criteria (eg, quantitative and/or qualitative data were collected and analyzed; focused exclusively within the field of pharmacy; published between 1990 and 2016), the study provided great insight into why manuscripts examining diversity in pharmacy education often rely on other fields such as medicine and nursing for perspectives, thereby amplifying the apparent need to increase research concerning the experiences of diverse individuals within pharmacy. Overall, this research highlighted the need to continue exploring this important topic as there are too few empirical studies to form clear, actionable trends. While there has been some progress on studying diversity in pharmacy, overall scholarship in this area frequently relies on other health professions to better understand historically marginalized populations, despite a lack of scholarship in other fields as well. In fact, while there is more scholarship devoted to understanding historically marginalized groups such as racial minorities in other health professions,¹¹⁻¹⁵

much of this dialogue has consisted of seminal reviews, commentaries, and reports.^{2,3,16-25}

The limited research articles published tend to emphasize quantifiable measures of diversity and inclusion and impacts of admissions processes on minority candidates. There is a significant gap, however, in areas of qualitative study. For example, one valuable step towards improving the sense of belonging for students self-identifying as underrepresented racial minorities (URMs) (ie, Alaska Natives, Native Americans, Black or African Americans, Hispanics, Native Hawaiians and other Pacific Islanders) in pharmacy is to understand the lived experiences of those currently pursuing education to become pharmacists.

By studying the current landscape of pharmacy and health professions education as experienced by underrepresented populations, we can gain important insight into how we can develop intentional practices and policies needed to better recruit and retain students self-identifying as URMs and enhance their experiences. This could positively impact the diversity of the healthcare workforce, enhance patient care, and decrease health disparities. Accordingly, this work explores the social and academic experiences of students self-identifying as URMs in pharmacy at a predominantly and historically White institution, how they made meaning of their experiences, and the strategic actions they took to navigate towards degree completion.²⁶⁻²⁸ This study was informed by three theoretical perspectives including an anti-deficit approach, graduate and professional student socialization framework, and agency theory.

The first theoretical perspective guiding this work is the anti-deficit approach. When examining the scarcity of minority students in higher education and acknowledging the achievement gaps that exist, scholars have mostly presented their research by “amplify[ing] minority student failure and deficits instead of achievement.”²⁸ Conversely, an anti-deficit perspective explores the lived experiences of students self-identifying as URMs in a

more encouraging perspective by highlighting their successes despite challenging experiences they may encounter.²⁸ In this work the anti-deficit framework reverses questions that have generally been used to examine the deficiencies of higher education experiences of students self-identifying as URMs and the outcomes thereof and presents them in a more positive approach. For example, as opposed to asking why there are so few URM students in health professions, the anti-deficit focus of this study seeks to explore how URM students are successfully navigating health professions schools towards degree completion.

The next theoretical perspective framing this study is graduate and professional student socialization. Socialization is the process by which individuals “gain the knowledge, skills, and values necessary for successful entry into a professional career requiring an advanced level of specialized knowledge and skills.”²⁷ The socialization framework suggests that students first enter professional school with a particular set of experiences and a perception of what is required to be successful. Students are then socialized through a variety of experiences.²⁷ Upon earning a degree, students should have gained the necessary skills valued within a given field through interaction with a variety of elements.²⁷ In this study, Weidman and colleagues’ graduate and professional student socialization framework was specifically employed to understand the components influencing the experiences of URM students seeking pharmacy degrees, including their interactions with the professional communities (eg, practitioners and associations), personal communities (eg, family, friends, and employers), and the university (eg, institutional culture, academic program, peer and faculty interactions).²⁷

The final theoretical perspective is agency. Agency is defined as “taking strategic and intentional views and actions toward goals that matter to oneself. . . [which] include perspectives or actions.”²⁶ O’Meara and colleagues found that agency can be influenced on three levels: individual, organizational, and field and society. Individuals take these influences into consideration to make meaning of their experiences and take action to achieve a goal.²⁷ While research by O’Meara and colleagues focused primarily on faculty agency, their research has been previously employed to explore the strategic actions of URM doctoral students by incorporating the influences from Weidman and colleagues’ graduate and professional socialization framework and the anti-deficit perspective.²⁶⁻²⁹

This study explored four central components: predispositions, experiences, perspectives, and actions. Predispositions (eg, identity and pre-pharmacy school experiences) included students’ racial backgrounds and experiences prior

to pharmacy school enrollment. Pharmacy school experiences included students’ descriptions of their lived experiences of the phenomena under study, including their engagement on the university level and the pharmacy school level, as well as their engagement with peers, faculty members, and the curriculum.²⁷ Perspectives included the internal dialogue (ie, self-talk, self-reflection, inner conversations) occurring upon having those experiences.²⁶ Finally, actions included the behaviors students exhibited to navigate the experiences toward degree completion.²⁶ Together, these elements provide a comprehensive view of how URM pharmacy students make meaning of their experiences and provide critical insights into the actions taken to gain the skills, knowledge, and values needed to advance towards degree completion.

METHODS

The study employed a phenomenological approach to understand how the participants experienced being URM students in a pharmacy school at a predominantly and historically White institution. A phenomenological study seeks to describe the “lived experiences” of individuals around a particular concept or phenomenon.^{30,31} Participants were recruited via an introductory email sent to institutional gatekeepers from January to March 2017. Potential participants completed a demographic survey to determine eligibility for the study and electronically signed an informed consent form. In an effort to gain multiple perspectives and explore information-rich cases, purposeful sampling was used; specifically, criterion and snowball sampling were employed.³² Participants were selected if they self-identified as URM students and were enrolled in the school of pharmacy at the study site. The 20 eligible students participated in 90-minute, semi-structured individual interviews from April to May 2017. The interview protocol was informed by elements of the study’s theoretical framework. Interviews were recorded and transcribed by a third party (Rev.com) prior to data analysis.

Data collected through interviews were analyzed using the Sort and Sift, Think and Shift method.³³ First, the interviewer wrote an analytic memo (eg, “what do I know so far”) to summarize each of the post-interview memos. Next, transcripts were read to better understand the data. Initial reading of the transcripts was completed with minimal engagement (ie, highlighting, notetaking) as the purpose of this step was to re-familiarize the researcher with the data prior to delving into the coding process. Afterwards, Atlas.ti, Version 8 (Atlas.ti Scientific Software Development GmbH, Berlin, Germany) was employed to highlight pulse quotations, which are segments of the data that are meaningful, interesting, and/or impactful as it relates to the phenomena under study.

Next, highlighted pulse quotations were mined to develop an episode profile for each transcript, and an accompanying memo was written. Then, preliminary themes or topic lists emerging from the data were compared within and across episode profiles. Next, multiple coders used several rounds of analysis to refine the codebook which guided the final rounds of coding and theme identification. After finalizing themes, the lead coder employed iThoughts, Version 5.14 (ToketaWare; York, England) to review the themes and developed logic maps by aligning the themes to relevant components of the theoretical framework that informed the study (ie, graduate and professional student socialization and agency). Specifically, four theoretical components were applied in this mapping process: predispositions, experiences, perspectives, and actions. After the mapping was completed, the data were reviewed with a co-analyst. Areas of disagreement were discussed to derive consensus.

Several steps were taken to ensure the trustworthiness of the study. First, biases were acknowledged through a process of reflexive memo-ing prior to data collection and after each interview. Additionally, multiple coders were used to analyze the data to minimize researcher bias, and several meetings were held to establish consensus. Further, the coders were reflexive via frequent journaling and memo writing, and a dependability audit was used to track the steps taken to conduct the study.

RESULTS

Of the 32 students interested in the study, 26 were determined to be eligible to participate. Of the study's eligible participants, 20 registered for and completed research interviews. The participants represented nearly 40% (n=20/55) of the total URM student population from the study site. Of the participants, 16 (80%) students identified as Black and four (20%) students represented other underrepresented groups, including Hispanic or Latino, of any race and Native Hawaiian or Other Pacific Islander, not Hispanic or Latino. Fifteen (75%) participants identified as female. The majority of the participants were either second-year (PY2) pharmacy students (30% or n=6) or third-year (PY3) pharmacy students (35% or n=7). First-year pharmacy (PY1) students represented 20% (n=4) of the participants, and three (15%) of the participants were in their fourth (final) year (PY4) of pharmacy school.

The results of the study were synthesized into a conceptual model to visually depict the process URM pharmacy students followed as they pursued their PharmD (See Figure 1). In this paper, an overview of the conceptual model appears first, followed by specific results from interviews that provided the grounds for developing the conceptual model.

Prior to detailing the conceptual model derived from this study, the construct should be defined. As contextualized by Imenda:

a conceptual [model] may be defined as an end result of bringing together a number of related concepts to explain or predict a given event, or give a broader understanding of the phenomenon of interest – or simply, of a research problem. The process of arriving at a conceptual [model] is akin to an inductive process whereby small individual pieces (in this case, concepts) are joined together to tell a bigger map of possible relationships.³⁴

Here, the developed conceptual model depicts the pathway and experiences of pharmacy students identifying as URMs as derived from the concepts (ie, topics and themes) uncovered from the study's results to provide a broader understanding. Flowing from top to bottom, the model begins with pre-pharmacy school experiences depicting how the students gained exposure to and became interested in the pharmacy profession. After expressing and acting on their interest in the profession, the students received encouragement to attend pharmacy school and eventually enrolled. Once enrolled, the students engaged, to some extent, on both the institutional and pharmacy school level. Institutional engagement was less prevalent. For this reason, the lighter font and dotted outline depicts this step of the model. Within pharmacy school, students' experiences were influenced by several components including the school's climate, curriculum, faculty, and peers (ie, social and academic). Upon having these experiences, students made meaning through inner conversations that seemed to serve as facilitators or motivators and/or took a strategic and intentional action. The actions students took to navigate the pharmacy school environment are listed on the right side of the model within the Pharmacy School box. These actions are linked to the experience's students encountered on the school level (ie, climate, curriculum, faculty, and/or peers). Upon successfully navigating the pharmacy school environment, the students are anticipated to graduate. The graduation box is illustrated with a dotted outline as each of the participants were enrolled in school during the study and, while graduation was anticipated, it did not occur during the time of the study. Altogether, this framework displays the themes emerging from in-depth interviews with the participants. The aforementioned section provides an overview of the visual depiction of the conceptual model. The themes resulting from the study are detailed in the following paragraphs.

In the pre-pharmacy school stage, pipeline programs both exposed URM students to and affirmed their interest in pharmacy. These pipeline programs were

Conceptual Framework Exploring URM Students' Experiences Toward Pharmacy Degree Completion

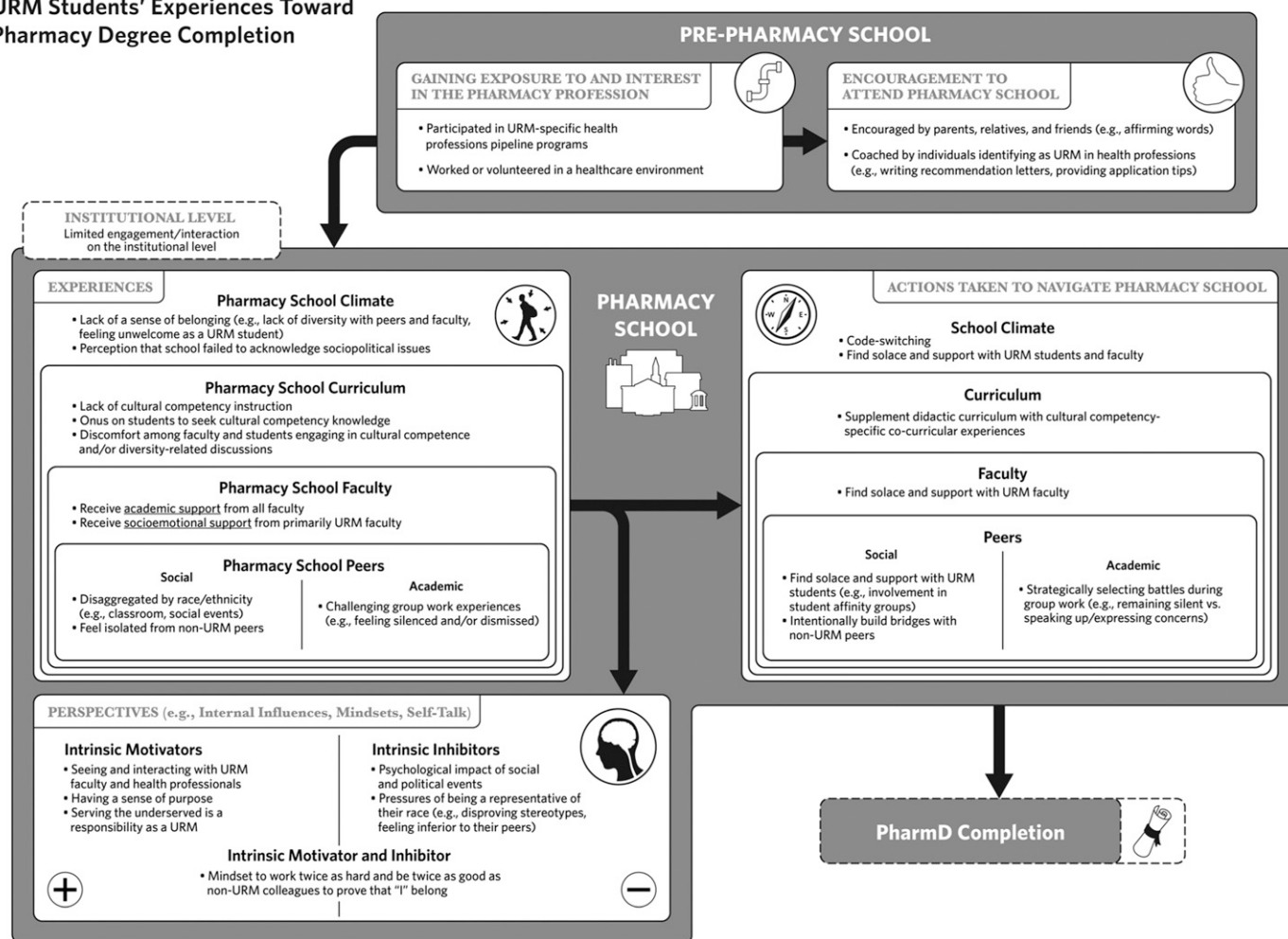


Figure 1. Conceptual Framework for Exploring the Experiences of Underrepresented Racial Minority Student Pharmacists

specifically developed to target URM students. One student expressed, “I was involved in a lot of medical science classes, and my teacher at the time saw this opportunity. . . she thought I’d be interested. It was for the [pipeline] program. When it came, I felt like the career would be a good fit for me . . . that was my first exposure to pharmacy.” The participants noted that engaging with URM faculty members, mentors, and pharmacy professionals within these programs played a major role in confirming their interests.

Students were encouraged to attend pharmacy school by parents, relatives, and friends. Motivation primarily consisted of receiving affirming words. Students also received “coaching,” which consisted of actions to assist students in applying to school (eg, providing tips to apply, writing recommendation letters). These “coaches” primarily identified as URMs and consisted of persons with connections to health professions (or professionals), individuals employed as pharmacists, other health

professionals, and faculty and administrators within a school of pharmacy.

The students revealed that they had very little engagement on the institutional level (ie, outside of the school of pharmacy), often feeling “disconnected.” They expressed that they were in an academic and social silo as students within a pharmacy school, only sparingly connecting with university-level racial affinity student organizations (eg, Black Graduate and Professional Student Organization). However, student responses regarding their experiences in pharmacy school (ie, school level) revealed a “chilly” climate that triggered a low sense of belonging. In describing their experiences, one student expressed, “I’m surviving, I don’t know what else to say.” The participants voiced that this low sense of belonging was triggered by a lack of racial/ethnic diversity within the School and a host of experiences leading them to feel unwelcomed. One participant lamented, “There aren’t really many [URM] professors or faculty members that

look like me. There aren't really students that look like me." Using her fingers as a measure of diverse individuals within the school, another participant noted, "You can count them on one hand. . . ." Other students corroborated the chilly climate, stating, "the overall environment and culture isn't conducive to my overall success," and "I just want to feel a sense of belonging." Of note, interviews were conducted during a period of highly controversial social issues and a racially divisive presidential race in 2016.^{35,36} Considering this, the students also felt unwelcomed because of the school's lack of social awareness and failure to acknowledge social and political issues. While students were not expecting the school to "take a side" on the issues, they expressed a desire that the School acknowledge the occurrence of events and create spaces for discussion.

Students stated that the curriculum lacked an emphasis on cultural competence instruction. In fact, one student expressed, "You don't see the complexity of what we will face as health care practitioners." In addition, students sensed that gaining cultural competency knowledge was optional and the responsibility to gain cultural competence awareness had been placed upon them. The participants emphasized a lack of diversity in patient cases as most in-class studies involved White patients. In some instances, Black patients were included. However, students expressed a desire for more diverse patient cases. For example, one student stated: "I think it would be good for us to have a wider spectrum of patient populations because that does play into the health and what we are going to see on rotations and working in the community at this point."

Study participants also perceived that faculty diversity may have an impact on how cultural competence instruction was delivered. One participant expressed that perhaps the cases are not as diverse at the School because the faculty lacks diversity. Another student continued, "the lack of diversity in faculty can unintentionally trickle down into how we're taught and things to be aware of and recognize." Another stated, "It kind of for me perpetuated that social hierarchy. It just seemed like it was just a continuous representation of White people."

The participants also felt that, in some instances, their non-URM peers and faculty members were uncomfortable discussing culturally sensitive or diversity-related topics. As one student recalled: "You can tell when someone's getting ready to read a case. Before they get to [the term] 'African American,' they think about whether they should say 'African American' or 'Black,' or they kind of stumble with saying it. And it's just like, this is weird. . . . I don't really know how to fix that or react to those type of things. 'Cause I think it can be a two-way street. I noticed that you're uncomfortable. That makes

me uncomfortable. But the person's trying to make sure that they're not saying something wrong that offends somebody else, too. So it's kind of like walking on eggshells. . . . It just makes you feel more Black. I don't know how to explain it."

The participants also noted experiences related to the differences in types of support received from faculty members. Specifically, the participants expressed that they were satisfied with the academic support they received from all faculty members, despite racial/ethnic background. They often sought academic support from faculty members during office hours, after classes, and via email. However, the students noted that they solicited or received socioemotional support mostly from URM faculty members. Socioemotional support included receiving empathy and understanding regarding issues beyond academics that the URM students encountered. Students noted that URM faculty members provided safe spaces for students to talk and freely express themselves. Such socioemotional support was especially key for those students who had little to no exposure to URM faculty members prior to pharmacy school. For example, one participant expressed, "So Dr. [Xavier] was the first Black professor I have ever had in my life, like from the time I started school until pharmacy school. She's the very first Black professor I have ever had. . . . I can only imagine if I've never had a Black professor, how many other people haven't had the same experience?"

Students were also asked about their academic and social experiences with their peers. With regard to social peer experiences, the perception of self-segregation among students was a common theme. This was often evident both within the classroom and with social environments beyond the classroom. Students noted that this self-segregation was apparent as early as orientation. One participant wondered, "maybe they just don't know how to start a conversation with me. . . . I don't know how to start a conversation with them." Another student expressed, "people just gravitate towards themselves. . . ."

Challenging group work experiences emerged as a prevalent theme regarding academic peer experiences, with students commonly feeling dismissed during group work and under pressure to prove their intellectual competence. One student expressed feeling isolated and "invisible." during groupwork, "And what I've experienced is that a lot of times in a group I'm kind of isolated in the sense to where people are talking around me, but talking to each other." Others echoed these sentiments, sharing statements such as, "I feel like my thoughts are not valuable" and "your thoughts don't count" when working in groups.

Agentic perspectives included any self-talk, inner conversations, or self-reflection expressed by students,

which either contributed to advancing their goals or inhibited them from doing so. Students were intrinsically inhibited by the mental impact of several issues including external racially motivated sociopolitical events, the pressures of being the “representative” for their race/ethnicity, and feeling inferior to their peers. One student asserted, “So there’s this pressure to be successful as a student. And then there’s this pressure to be successful as a black student and to be one of very few. That pressure, there’s a lot of burden there.”

The participants expressed a constant desire and perceived expectation to prove that they belonged. While such desires and perceived expectations were cued during engagement with faculty and preceptors, they were most present during peer interactions during group work. Consequently, students felt fatigued with constantly having to prove themselves and feeling ignored. However, students were intrinsically motivated to excel by increased interactions with URM faculty members, having a sense of purpose to be a role model within and uplift underserved communities, and believing in themselves. As one participant noted, “Okay. I’m here for a reason. [The underserved patients] seeing more people that look like me makes them feel comfortable. Just working in a setting where there’s fewer people that look like them is kind of like, ensuring for them. Well, I’m here for a reason. I just feel warm and fuzzy. Like, okay. Me being here’s a good thing. I feel like it’s impacted me to just continue to want to do something in pharmacy. Be the change I want to see.” Another participant described their service at a clinic primarily serving Latinx patients in a low socioeconomic environment as their “personal mission to advocate for and to work with those different groups.” Students were both intrinsically motivated and inhibited through their beliefs that they had to work twice as hard and be twice as good as their non-URM peers. One participant expressed: “Well as a Black person, in general, you have to work twice as hard. So, in the pharmacy school you also have to work twice as hard . . . I have to prove myself in every space . . . I have to make sure that my resume and my CV are twice as [good].”

Students also discussed taking several actions to navigate the pharmacy school environment including code switching by strategically choosing when to “be themselves” or assimilate with the dominant culture, “picking battles” during group work assignments (ie, remaining silent or speaking up), and intentionally creating community with other URM students and faculty members for survival. The students noted that there were consequences if they chose not to code-switch or “to be themselves” as they perceived their racial identity was associated with being unprofessional. Such consequences also extended to their

picking battles during group work. Students perceived that they would be judged by their non-URM peers for speaking up about feelings of being silenced or dismissed during group work. In fact, some students expressed fear of being labeled an angry minority (eg, an angry Black woman). Students noted that there are risks in speaking up including being stereotypically typecast as an angry or loud minority when commenting on their concerns to their peers. However, participants felt that their non-URM colleagues were able to freely convey their discontent in group work settings, despite tone and without such worry. Conversely, some students revealed that their silence during such challenging group work experiences might be perceived as not participating, which would lower their grade. One participant provides a perspective on this: “It’s one of those things where you’re damned if you do, damned if you don’t. If you don’t communicate, your participation grade is going to get hurt because your peers are going to say you didn’t participate.”

Students also expressed concerns regarding the curriculum. Particularly, the lack of content focused on cultural competency. To relieve their concerns, students acted by supplementing the didactic curriculum and purposefully seeking out cultural competency specific co-curricular and immersion experiences. Specifically, students joined organizations targeting underserved populations and strategically sought out immersion experiences in underserved areas. The participants also found solace and support with other URM faculty members, staff members, and students. Students expressed comments such as, “we need to connect with each other. We need to support each other,” and “in pharmacy school if you don’t have a group of friends who have your back, you won’t make it.” One student described this need as a mechanism for “survival” at the school. While the participants primarily sought out other URM students, there were unique patterns of building friendships and breaking barriers between their non-URM peers. However, students did note that they perceived a lack of reciprocity in interactions from non-URM peers. The participants often felt that they had to initiate the conversations as opposed to being engaged by their non-URM peers.

DISCUSSION

The national discourse surrounding the trends of an increasingly diverse country and the need for more diverse health practitioners, as well as the past, current, and impending implications propelling health disparities leaves much to be discovered. Accordingly, this research provides a roadmap for scholars and practitioners interested in enhancing the racial and ethnic diversity and inclusion in health professions by providing insight on

how students may gain interest in and are encouraged to attend pharmacy school, their experiences, how they make meaning of those experiences, and the actions they take to navigate their challenging experiences towards degree completion.

Several key themes contributed to the development of the conceptual framework. First, regarding pre-pharmacy experiences, pipeline programs both exposed URM students to and affirmed their interest in the pharmacy profession. A key to such pipeline programs was that they were developed specifically to target URM students. The participants noted that engaging with URM faculty members, mentors, and pharmacy professionals within these programs played a major role in affirming their interest. Concerning perceptions of their pharmacy school experiences, students highlighted a lack of diversity in the student body and faculty make-up and a lack of cultural competence instruction. Students discussed taking several actions to navigate the environment including code switching, picking battles during group work assignments, and intentionally developing community with other URM students. Further, the “chilly” climate existing within the pharmacy school triggered a low sense of belonging for the students, intrinsically inhibiting their success. However, increased interactions with URM faculty members intrinsically motivated students to excel.

There are implications of this work. First, this study fills an important gap in the literature concerning the experiences of historically marginalized groups, namely underrepresented racial minorities in health professions. Previous work reveals that there is limited published research regarding diversity in pharmacy education. For example, AACP’s 2014 Argus Commission report examined diversity and inclusion from five perspectives, including that of current students, and found little empirical research on the *experiences* of underrepresented minority students in pharmacy programs. This work sheds light on the need to increase scholarship related to diversity in pharmacy and health professions. Further, while emphasizing the experiences of pharmacy students, this conceptual framework also provides direction for other health professions schools seeking to recruit and retain URM students, serves as a foundation for researchers interested in exploring this much needed gap, and lends perspectives for students interested in pursuing health professions degree pathways.

As a phenomenological qualitative study, this work also provides insight into the experiences of URM students “in their own words” as they lived through the phenomena, made sense of it, and strategically navigated the pharmacy school environment towards degree completion. Understanding the perspectives from and

“hearing” the voices of historically marginalized persons provide key insights into the school’s climate and provide a compass towards improvement. In some instances, students expressed that this was the first time that they were asked to reflect on their experiences as a historically marginalized student. Thus, this research provides greater insight into what the experiences might be like for both current and future pharmacy students considering the profession. Further, this research provides faculty members and administrators with a glimpse of student experiences that may be present within their pharmacy school. Additionally, future researchers may use this research as a springboard to provide more breadth and depth to the current framework.

Accordingly, this study has the potential to inform policy and practice both within pharmacy schools and on a national level as it contributes to efforts to enhance the experiences of URM students. While recruitment of URM students by pharmacy schools is key to “plugging the leaky pipeline,” it is not enough. We must also acknowledge the chilly climate URM students encounter within the pharmacy schools that may decrease their sense of belonging and threaten retention. Thus, this research aligns with a key principle from The Sullivan Commission’s report arguing for the need for health professional schools to shift their culture:

...to increase diversity in the health professions, the culture of health professions schools must change. Our society is experiencing a significant and rapid demographic shift. The culture of our nation is changing. So too must the culture of our health institutions. As colleges, universities, health systems, and others examine these recommendations, they must also examine the practices of their own institutions.¹⁹

Some pharmacy schools have improved recruitment efforts and facilitated an enhanced sense of belonging for diverse students. These schools have made intentional and authentic efforts to increase faculty and student diversity, hired and supported staff and administrators in diversity-related positions, built community through engagement, created spaces to face and discuss challenging sociopolitical issues, examined the curriculum to determine gaps of cultural competency instruction, and built relationships with underserved rotation sites among other practices. However, with this progression, more work must be done.

This study is not without limitations. While the participants accounted for approximately 40% of the total URM population at the study site, this work was conducted at a single school of pharmacy. Further, while this

work provides an in-depth look into the experiences of URM students, the results do not reveal all experiences, perspectives, and actions taken to navigate the environment. The results provided are those most prevalent of the studied population within a particular context. Considering the aforementioned, a national, multi-institution study would provide additional insight. Further, while this study assumes transferability but not statistical generalizability, future research employing quantitative measures and using the study's results could be considered.³⁷ In addition to a national study on URM pharmacy students, this work will be extended to include URM students in other health professions through the use of a critical qualitative lens.

CONCLUSION

This exploratory study provides the foundation for a conceptual framework to better understand URM students' journey to pharmacy school and the experiences therein. Findings can be used to develop and implement practical solutions to increase the diversity of pharmacy schools and other health professions schools and create environments conducive to the success of historically marginalized groups, namely URM students. Better understanding URM students' experiences, how they make sense of those experiences, and how they take actions to navigate their environment may be key to creating inclusive climates, increasing URM student retention, diversifying the healthcare workforce, and enhancing patient care.

ACKNOWLEDGMENTS

Thank you to the students who shared their valuable time and experiences, to colleagues who assisted with participant recruitment, research assistants and analysts for their efforts, AACP for funding this work, and to my AACP New Investigator Award mentor for his ongoing support.

REFERENCES

1. Nkansah NT, Youmans SL, Agness CF, Assemi M. Fostering and managing diversity in schools of pharmacy. *Am J Pharm Educ.* 2009;73(8). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828313/>. Accessed October 19, 2017.
2. U.S. Department of Health and Human Services. *Sex, Race, and Ethnic Diversity of U.S. Health Occupations (2011-2015)*. Rockville, Maryland; 2017.
3. Services USD of H and H. The rationale for diversity in the health professions: a review of the evidence. *Heal Resour Serv Adm Bur Heal Prof.* <ftp://ftp.hrsa.gov/bhpr/workforce/diversity.pdf>. 2006.
4. Valentine P, Wynn J, McLean D. Improving diversity in the health professions. *N C Med J.* 2016;77(2):137-140. doi:10.18043/nmc.77.2.137

5. Bouye KE, McCleary KJ, Williams KB. Increasing diversity in the health professions: reflections on student pipeline programs. *J Heal Sci Humanit.* 2016;6(1):67-79. <http://www.ncbi.nlm.nih.gov/pubmed/29644118>. Accessed October 25, 2018.
6. Yanchick VA, Baldwin JN, Bootman JL, Carter RA, Crabtree BL, Maine LL. Report of the 2013-2014 Argus Commission: Diversity and inclusion in pharmacy education. *Am J Pharm Educ.* 2014;78(10):Article S21. doi:10.5688/ajpe7810S21
7. Chisholm-Burns MA. Diversifying the team. *Am J Pharm Educ.* 2008;72(2):Article 44.
8. Chisholm MA. Diversity: A missing link to professionalism. *Am J Pharm Educ.* 2004;68(5):Article 120. doi:10.5688/aj6805120
9. Hayes B. Increasing the representation of underrepresented minority groups in US colleges and schools of pharmacy. *Am J Pharm Educ.* 2008;72(1):Article 14. <http://www.ncbi.nlm.nih.gov/pubmed/18322576>. Accessed October 19, 2017.
10. Bush AA, McLaughlin JE, White C, Pharm B. A review of contemporary diversity literature in pharmacy education. *Am J Pharm Educ.* 2017;81(7). doi:10.5688/ajpe8175961
11. Formicola A, Bailit H, D'Abreu K, et al. The dental pipeline program's impact on access disparities and student diversity. *J Am Dent Assoc.* 2009;140(3):346-353. doi:10.14219/JADA.ARCHIVE.2009.0166
12. Kim MJ, Holm K, Gerard P, et al. Bridges to the doctorate: Mentored transition to successful completion of doctoral study for underrepresented minorities in nursing science. *Nurs Outlook.* 2009;57(3):166-171. doi:10.1016/J.OUTLOOK.2009.01.004
13. Margo Brooks Carthon. J Nguyen T-H, Pancir D, Chittams J. Enrollment of underrepresented minorities in nursing majors: A cross sectional analysis of U.S. nursing schools. *Nurse Educ Today.* 2015;35(11):1102-1107. doi:10.1016/J.NEDT.2015.06.007
14. Williams LBA, Valenti M, Howie M, Mathur S. Predictors of underrepresented nursing students' school satisfaction, success, and future education intent. *J Nurs Educ.* 2018;57(3):142-149. doi:10.3928/01484834-20180221-03
15. Morrison E, Grbic D. Dimensions of diversity and perception of having learned from individuals from different backgrounds: the particular importance of racial diversity. *Acad Med.* 2015;90(7). https://journals.lww.com/academicmedicine/Fulltext/2015/07000/Dimensions_of_Diversity_and_Perception_of_Having.24.aspx.
16. Smith DG. Building institutional capacity for diversity and inclusion in academic medicine. *Acad Med.* 2012;87(11). https://journals.lww.com/academicmedicine/Fulltext/2012/11000/Building_Institutional_Capacity_for_Diversity_and.33.aspx.
17. Nivet MA. Diversity 3.0: A necessary systems upgrade. *Acad Med.* 2011;86(12). https://journals.lww.com/academicmedicine/Fulltext/2011/12000/Commentary__Diversity_3_0__A_Necessary_Systems.7.aspx.
18. Mitchell DA, Lassiter SL. Addressing health care disparities and increasing workforce diversity: the next step for the dental, medical, and public health professions. *Am J Public Health.* 2006;96(12):2093-2097. doi:10.2105/AJPH.2005.082818
19. Sullivan LW. Missing persons: minorities in the health professions. Sullivan Commission on Diversity in the Healthcare Workforce. 2004.
20. Nivet MA. A diversity 3.0 update: are we moving the needle enough? *Acad Med.* 2015;90(12). https://journals.lww.com/academicmedicine/Fulltext/2015/12000/A_Diversity_3_0_Update__Are_We_Moving_the_Needle.13.aspx.
21. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong O. Defining cultural competence: a practical framework for addressing

racial/ethnic disparities in health and health care. *Public Health Rep.* 2003;118(4):293-302. doi:10.1093/phr/118.4.293

22. Nivet MA. Commentary: Diversity and inclusion in the 21st century bridging the moral and excellence imperatives. *Acad Med.* 2012;87(11). https://journals.lww.com/academicmedicine/Fulltext/2012/11000/Commentary___Diversity_and_Inclusion_in_the_21st.10.aspx.

23. Karani R, Varpio L, May W, et al. Commentary: Racism and bias in health professions education how educators, faculty developers, and researchers can make a difference. *Acad Med.* 2017;92(11S). https://journals.lww.com/academicmedicine/Fulltext/2017/11001/Commentary_Racism_and_Bias_in_Health_Professions.2.aspx.

24. Grumbach K. Adopting postbaccalaureate premedical programs to enhance physician workforce diversity. *Acad Med.* 2011;86(2). https://journals.lww.com/academicmedicine/Fulltext/2011/02000/Commentary___Adopting_Postbaccalaureate_Premedical.8.aspx.

25. DeLisa JA, Lindenthal JJ. Reflections on diversity and inclusion in medical education. *Acad Med.* 2012;87(11). https://journals.lww.com/academicmedicine/Fulltext/2012/11000/Commentary___Reflections_on_Diversity_and.11.aspx.

26. O'Meara K, Campbell C, Terosky A. Living agency in the academy: a conceptual framework for research and action. In: *Association for the Study of Higher Education*. Charlotte, NC. 2011.

27. Weidman JC, Twale DJ, Stein EL. Socialization of graduate and professional students in higher education: a perilous passage. *ASHE-ERIC High Educ Rep.* 2001;28(3):118. <https://eric.ed.gov/?id=ED457710>. Accessed December 13, 2018.

28. Harper SR. An anti-deficit achievement framework for research on students of color in STEM. *New Dir Institutional Res.* 2010;2010(148):63-74. doi:10.1002/ir.362

29. Bush A. *These Are My Keys to Success: The Experiences of African American Male HBCU Graduates in STEM Doctoral Programs at PWIs*. North Carolina State University; 2014. <https://repository.lib.ncsu.edu/bitstream/handle/1840.16/9602/etd.pdf?sequence=1&isAllowed=y>.

30. Bush AA, Amechi MH. Conducting and presenting qualitative research in pharmacy education. *Curr Pharm Teach Learn.* 2019. doi:<https://doi.org/10.1016/j.cptl.2019.02.030>

31. Creswell J. *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. 2nd ed. Thousand Oaks, CA: Sage; 2007.

32. Patton MQ. *Qualitative Evaluation and Research Methods*. 3rd ed. Thousand Oaks, CA: Sage Publications; 2002.

33. Maietta RC, Mihas P. Sort & sift, think and shift: let the data be your guide. In: *Presentation at ResearchTalk Fall Seminar Series in Chapel Hill, NC*. 2017.

34. Imenda S. Is there a conceptual difference between theoretical and conceptual frameworks? *J Soc Sci.* 2014;38(2):185-195. doi:10.1080/09718923.2014.11893249

35. Mutz DC. Status threat, not economic hardship, explains the 2016 presidential vote. *Proc Natl Acad Sci U S A.* 2018;115(19):E4330-E4339. doi:10.1073/pnas.1718155115

36. Major B, Blodorn A, Major Blascovich G. The threat of increasing diversity: why many White Americans support Trump in the 2016 presidential election. *Gr Process Intergr Relations.* 2016;21(6):931-940. doi:10.1177/1368430216677304

37. Smaling A. *Inductive, Analogical, and Communicative Generalization*. Vol 2. Winter; 2003. http://www.ualberta.ca/~iiqm/backissues/2_1/html/smaling.html. Accessed December 13, 2018.