Diversity, Equity, Inclusion, and Justice

Focusing on Diversity: A Regional Internal Medicine Residency Viewpoint on Underrepresented Minority Support, Retention, and Mentoring

Rachel Harris, MD, MPH
Kyle Covington, PT, DPT, PhD
Cristin Colford, MD
Nancy Denizard-Thompson, MD
Michael Contarino, MD
Kimberley Evans, MD
Aimee Zaas, MD, MHS
M. Suzanne Kraemer, MD
Diana McNeill, MD

ABSTRACT

Background While the overall percentage of residents who withdraw (2.7%) or take extended leave (1.0%) are low, subgroup analysis has found that minority physicians are approximately 30% more likely to withdraw from residency than their white counterparts and 8 times more likely to take extended leave of absence. With ongoing national efforts to support diversity in medical education through increased recruitment of underrepresented in medicine (UiM) students to residency programs, there is paucity of data identifying specific experiences challenging or contributing to their overall resiliency. Better understanding of the lived experience of UiM residents will allow residency programs to create successful curricular programing and support structures for residents to thrive.

Objective We sought to understand UiM internal medicine residents' experiences during residency training.

Methods We used a retrospective review of focus group transcripts of UiM internal medicine residents from 5 academic institutions in 2017 (4 in North Carolina and 1 in Georgia).

Results Of 100 self-identified UiM residents from 5 institutions, 59 participated in the focus groups. Using a consensus-based review of transcripts, 25 distinct codes in 8 parent code categories were determined. Two primary themes emerged: resilience and isolation. Three secondary themes—social support, mentorship, and external expectations and/or biases—served as mediators for the primary themes.

Conclusions UiM residents who became or were already resilient commonly experienced isolation at some time in their medical career, specifically during residency. Moreover, they could be influenced and positively or negatively affected by social support, mentorship, and external expectations and biases.

Introduction

Despite improvements in the overall health of the US population, significant disparities still exist among many racial and ethnic groups. Efforts to address the multifactorial causes of these disparities are underway at many institutions, and efforts to promote diversity and inclusion are now core regulatory requirements for residency training programs. Three main pathways have emerged in the literature that illustrate how increasing diversity among physicians can aid in decreasing health disparities: (1) addressing physician practice choices that may lead to increased access to care; (2) increasing physician-patient communication and cultural competency; and (3) diversifying medical education.[1]

In the 1990s, "3000 by 2000" was introduced as a national effort to increase the pipeline of underrepresented in medicine (UiM) physicians in the United States. Additional goals included increasing access to culturally competent physicians, increasing patient trust and satisfaction, and improving the minority patient-physician interaction.[2] Research has shown that minority patients are more likely to report satisfaction with care when their usual care physician is a UiM physician rather than a white physician. Such alignment in race/ethnicity, language, or other sociocultural factors is thought to enhance efficacious and culturally competent communication.[3] In addition, many patients reported increased comfort with

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UiM physicians, which enhanced the patient-physician relationship.[3] Moreover, UiM physicians were more likely to practice in communities with larger populations of UiM patients who may be uninsured and have an overall poorer health status compared with major ethnicities.[4]

In 2004, the Association of American Medical Colleges (AAMC) updated the definition of "underrepresented in medicine" as "racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population." With this updated definition, a targeted approach began to take shape as the US population comprised 30% UiM patients relative to a physician workforce that included less than 10% of physicians who identified as UiM.[5,6] The momentum to increase the number of UiM physicians created awareness of the shortage of UiM faculty available to cultivate supportive learning environments. In addition, there is a lack of adequate knowledge about the particular needs of UiM medical students and even less information on residents.[6]

Residency can be a challenging time for all trainees given the emotional and physical demand of the work environment; however, UiM residents are often among a small group of residents. One study reviewed data from the American Medical Association looking at withdrawal and extended leave during residency training from 1991 to 1992.[7] While overall the percentage of residents who withdrew (2.7%) and those who took extended leave (1.0%) were low, when they did subgroup analysis they found that minority physicians were almost 30% more likely to withdraw from residency than their white counterparts and 8 times more likely to take extended leave of absence.[7,8] A study looking at attrition rate in US obstetrics and gynecology residency programs also found higher attrition rates in UiM residents.[9] Osseo-Asare et al performed a qualitative study of 27 minority resident physicians representing 21 residency programs and a diverse range of specialties to better characterize the experience of race/ethnicity in the workplace.[8] They found that in addition to the typical stress of residency training, participants reported a daily barrage of microaggressions, being tasked as race/ethnic ambassadors, and challenges negotiating professional and personal identity while seen as "other," which affected their overall well-being.[8] Research has shown that factors such as physician burnout, depression, job dissatisfaction, and low quality of life have been associated with negative effects on patient care and poor performance.[10] Thus, it is imperative that these issues are addressed for UiM residents. Notably, as social and meeting structures have changed in the setting of the COVID-19 pandemic, and as the impact of this disease disproportionally affects communities of color, it is imperative for programs to find meaningful ways to support and engage UiM trainees.

Objectives
We sought to better understand the underrepresented in medicine (UiM) residents' experience during residency training and what factors, either positively or negatively affected them during this time period, to allow these residents to thrive and to better assist with future programming across residency programs.

Findings
Additional burdens faced by UiM residents may uniquely affect their overall well-being during residency, and residents may likely have experienced isolation at some time during their training.

Limitations
As this study was specific to the southeastern United States, the generalizability to all UiM residents may be somewhat limited.

Bottom Line
In order to accurately comprehend the UiM resident's experience during residency, a systematic approach that recognizes the multifaceted systems that are in effect is crucial to ensuring the successful achievement of a competent and resilient physician.

The viewpoints of UiM faculty in one qualitative study addressed the need to improve the culture of diversity in academic medical centers by increasing the number of diverse leaders, thus mirroring the US population.[11] In 2018, only 3.6% of faculty at US academic medical schools were African American and only 5.5% were Hispanic, Latino, or of Spanish origin, an inadequate number to meet the projected target.[12] Orom et al described the necessity of transforming medicine into a more inclusive profession by improving the learning and social environment for students, given that at baseline UiM students were more likely to have negative racial and academic experiences compared with their counterparts.[13] This has led to higher attrition of UiM medical students and may have downstream effects on recruitment of younger students into medical school, but also impact residency selection and desire to pursue a career in academic medicine in the future.[13] Thus, in addition to better understanding the experience of UiM medical students, it is paramount that we better understand the experience of UiM residents during their residency training.

This study identifies specific experiences that have challenged and contributed to UiM residents' overall resiliency and well-being, so we can better inform successful programing for residency programs.

Methods

This is a qualitative descriptive study using a retrospective review of focus group transcripts of UiM internal medicine resident physicians.

Setting and Participants

In an effort to better understand what UiM residents need for success and well-being during residency, a consortium of 5 academic internal medicine residency programs in North Carolina and Georgia was developed and modeled after a previously reported consortium.[14] It was primarily composed of leadership from the residency programs. The first step of this collaboration was the creation and deployment of focus groups with UiM internal medicine residents to identify themes and inform future directions for the collaborations. Subjects were selected from the participating residency programs based on self-identification in AAMC's Electronic Residency Application Service database. They were invited to participate by a member of the consortium. The participants were offered lunch or dinner during the focus group, but no other form of compensation was provided.

Procedures

A faculty member who was not associated with the residency program leadership facilitated the focus groups. The questions were standardized and developed from the authors after an initial meeting to discuss the issues related to the study question. The questions discussed in each focus group are listed in TABLE 1. The focus group members agreed to taped interviews for data collection during the session. Data from all 5 institutions were compiled and sent to a central location for data interpretation.

Data Analysis

Focus group transcripts were analyzed retrospectively. The research team employed line-by-line coding processes established in the literature to analyze each transcript.[15] First, 1 transcript was coded by 1 researcher (K.C.) who applied initial coding techniques described in the literature.[11] In initial coding the researcher remains open to all thematic possibilities present in the transcript and does not use a previously established coding framework. To ensure integrity in the coding process, 2 additional researchers (R.H. and S.K.) reviewed the work of the first researcher (K.C.). The 3 researchers then achieved consensus on all coded text, code names, and code definitions through dialogue.[15,16]

TABLE 1
Focus Group Questions

Topic	Question
Definition	Define diversity
Support	What tangible support is needed by UiM residents?
Support	What current programmatic support would you deem as necessary?
Resilience	What promotes your resilience?
Community	How quickly does your community form?
Expectations	What special expectations do you perceive in the workplace as a UiM resident?
Support	What resources are used to support you as an UiM resident?
Community	Any issues specific to primary care training for you?
Community	Any issues specific to training in the South?

Abbreviation: UiM, underrepresented in medicine.

Following this process, 1 author (K.C.) coded the remaining 4 transcripts using the codes derived from the first transcript; additional codes were added as needed. Two authors (R.H., M.S.K.) reviewed the coded transcripts, and the 3 researchers achieved consensus on all coded text, code names, and definitions across the remaining 4 transcripts.

Approval was received from institutional review boards at participating institutions prior to convening the focus groups.

Results

Participants

A total of 5 academic residency programs were included in the study from January through June 2017: East Carolina University (Greenville, NC), Duke University (Durham, NC), Morehouse School of Medicine (Atlanta, GA), University of North Carolina (Chapel Hill, NC), and Wake Forest University (Winston-Salem, NC). Residents who identified themselves as UiM volunteered to participate in focus groups conducted. A participation rate was calculated for each residency program, with East Carolina 48%, Duke University 47%, Morehouse School of Medicine 69%, University of North Carolina 50%, and Wake Forest School of Medicine 75% (TABLE 2).

Following the consensus-based review of the 5 transcripts, 25 distinct codes in 8 parent code categories were determined (TABLE 3). After thematic analysis by the research team of the 8 code categories, 25 distinct codes therein revealed 2 primary themes: resilience and isolation. Additionally, 3 secondary themes emerged, which serve as mediators for the primary themes. The secondary mediating themes

BOX Resident Reponses Supporting Primary and Secondary Themes

Primary Themes

Resilience

- "I don't let anyone affect my perspective, not whatever patient, attending, or whatever mess up my perspective or my day or year. That's me. That's how I am built."
- "I think my outlook makes it a little easier. . .versus if I had a bad outlook. You got to reflect on yourself, on how you can make your own situation."
- "Aspiring to be the best at my job."
- "Past experiences in life. . .come too far to quit."
- "In my case I can always find someone to talk to. I have the support around us. I have my wife. We belong to a church where we can also get that support. We can always talk to our pastor about anything that's going on in our life."

Isolation

- "You don't want to give anyone a reason to think that you are not up to par. You always want to be better. It's not the same if your peers are better. Not allowing anyone to say or think that you are less than what you actually are capable of because of your race. So I have always had high expectations of myself and this causes me to perform at a higher level than I normally would just because of this added pressure."
- "[They] are from here and went to school here but for everyone else the answer is usually no and that's why we don't see ourselves in the halls."
- "We are 1 out of 10 and you kind of expect 100% of that 1 out of 10 to stay. If the focus were to get more representation from faculty, physicians, and health system. I think part of it is having enough people coming in the front door to begin with and the same rate will stay."
- "I think [city] is kind of isolating [not] the environment for minorities, underrepresented minorities and so when we go to restaurants or out to do whatever we don't see a lot of middle, upper middle class UiM and that is why my husband and I will not stay here. We know we should but we don't want to feel isolated. We don't want our kids to feel isolated."
- "I feel like during rounds social economics and topics get brought up and it's completely lost on them when you try and advocate for patients; for the team to look at them a different way because you are trying to get them to understand the background and that kind of thing. It makes it an even more isolating feeling. To be in a situation like that."

Secondary Themes

Social Support

- "I agree, one thing I wanted to add if we had like a support system, somebody that we can fall back on, yes people say we should be accepting, but we do face discrimination. But if you had someone at the higher level that you can talk to that puts checks in place and can help you, you don't feel like you are just out there on your own, but if there was a system that can help you would be helpful."
- "Knowing I have the support of my co-residents, specifically from those who are underrepresented as they understand the struggles and challenges that comes with being a minority or student of color."
- "Having family and friends to vent to; having co-residents genuinely concerned about my well-being and being supportive."
- "Like accepting the fact that we are all here together being in a work environment that we're supposed to mutual help, just you knowing being in a very supportive environment, and accepting the fact that besides diversity, we do have the unity. I guess that would support resilience."

Mentorship

- "Is to have mentorship from someone of a similar background, you can be accepted, you can be supportive. You can have a good report with your colleagues, but if you can't see someone who has made it through that journey and represent that similar background to your own, then I think that's part of what's needed for under presented residents in general."
- "Yeah, I feel like it's my personal responsibility to talk to the people that may need something and I talk to the interns if they have questions and that kind of thing. Because nobody ever gave me those kind of things. . .. nobody ever really gave me anything. So I feel like it's my job to give them something and kind of talk to them. I just tell them what I'm doing I don't tell them what they should do. . .kind of give them an example."
- "I would be more likely to stay if I had an attending in my specialty of interest as one of my mentors. I'd be more than likely to stay. I just don't so I'm not likely to stay."
- "Yeah, we have a lot of Black residents here now but there's not one Black associate director, program director, chief."

External Expectations or Biases

- "To not be an embarrassment to your race. I mean being African American, there are a lot of stereotypes about us, we don't go to school, police are shooting us like crazy, Black kids are stupid. . ."

BOX Resident Reponses Supporting Primary and Secondary Themes (continued)

- "The pressure starts from the moment you leave high school. You are the first one in your family to go to college or the first one with a college degree, you are the first one to get to medical school, or you are the first one to any professional medical degree period. And so every single step you take and every level of success you obtain, the bar becomes higher and higher. . ."
- "From some faculty it appears that there is the expectation for me to understand the plight and reasons for the personal choices because patients and I share common themes (ie, race)."
- "Peers: I perceive expectations to "earn my place" and having no room for mistakes; (Family): the pressure is really piling up to start earning and support everyone."

were social support, mentorship, and external expectations or biases. Each theme and its mediators are described below. Moreover, representative individual resident responses from transcript review, exemplifying the primary and secondary themes, can be found in the BOX.

The common themes identified in the focus groups were resilience and isolation, both of which may be influenced and affected positively or negatively by social support, mentorship, external expectations, and bias. In defining "diversity," participants viewed diversity as a needed entity in medical education. Moreover, it was viewed broadly as diversity in gender, race, and religion, but also noted were subcultures and socioeconomic status within the UiM community, presence or absence of role models, as well as the need for exposure to diverse groups earlier on in the medical education process.

UiM residents generally had positive attitudes regarding their programs and teaching faculty. They cited that having supportive faculty was important and having an UiM faculty member who was able to empathize with them was paramount. Having a confidential safe haven from program leadership to express their unique experiences was welcomed during the sessions.

Discussion

The shared experiences of social isolation, facing prejudice, and the assumption that they are non-clinical support were all examples of how common experiences could either lead to greater resilience or further isolation, depending on the level of resilience of the trainee or support offered by the individual programs. The additional burdens uniquely faced by UiM residents during training may threaten their overall well-being, including being the target of racial slurs, assumptions that they are non-clinical support staff rather than part of the medical team, and assumptions that they are medically trained to serve as translators.

Moreover, UiM residents stated a bias from UiM non-medical peers or family regarding wealth or prestige as young physicians early in their stage of training. This can be challenging for some UiM residents who may be first generation physicians or have family members/peers unfamiliar with medical school debt and residency pay structures. In addition, some may feel guilt for being successful and not want others to view them as "superior" or "better than" family members or non-medical peers. This added familial and social/community pressure, prior to completion of their training, placed an additional burden to succeed.

It is not uncommon for a UiM resident who ultimately becomes or is resilient to have experienced isolation at some time in their medical career, specifically during residency.[8] Further understanding the activities, mindset, and mentorship that influence these isolation experiences is paramount. The

TABLE 2
Underrepresented in Medicine Resident Focus Group Participation Rates From Each Program

Name of Program	Total UiM Residents	UiM Residents in Focus Group	% of UiM Resident Participation
East Carolina University	27	13	48
Duke University	19	9	47
Morehouse School of Medicine	42	29	69
University of North Carolina	4	2	50
Wake Forest University	8	6	75

Abbreviation: UiM, underrepresented in medicine.

TABLE 3
Code Categories From Focus Group Transcript Review

Name	Definition
Diversity	Diversity as a construct in society or medical education
Gender	Defines diversity by gender
Race	Defines diversity by race
Religion	Defines diversity by religion
Exposure in education	Discussion of diversity as something that should be integrated into education, exposing learners to various aspects of diversity
Need	Specific discussion of the need for diversity in medicine and/or medical education
Variability in diversity	Specifically defines diversity as a general construct inclusive of many different aspects (subcultures, socioeconomic status)
External expectations	Discussion of the expectations placed upon UiM residents by others (eg, patients, family, other health professionals, etc)
Finding a place of comfort	The desire of UiM residents to find a residency, cohort, and colleagues that are conducive to supporting their unique needs as learners
Motivators	Specific discussion of things that motivate UiM residents
Racism	Discussion of racism faced by UiM residents during residency or undergraduate medical education
Resilience	What makes one resilient as an UiM resident
Mental health	Discussion of the importance of mental health specific to UiM residents
Mindset for resilience	Discussion of how one must form a mindset of resilience in order to be successful
Role models	Discussion of the importance of and/or who are role models for UiM residents
Self-awareness	Discussion of how one conceptualizes themselves in the role of UiM resident
Self-reflection	Examples of times residents have reflected on previous experiences and the impact this has made
Social support	Examples of social support systems important to UiM resident
Strategies for success as a UiM	Examples of strategies to remain successful and resilient as a resident
Team member	The importance of being part of "the team" for resilience
Values	Discussion of how one's personal values play a part in being resilient
Barriers	Examples of barriers to social support inherent in the training system
Seeking support	Discussion of times the resident has specifically sought out social support
Unsupportive of UiM	Examples of experiences or processes in residency that are unsupportive of UiMs

Abbreviation: UiM, underrepresented in medicine.

literature indicates that both individual-focused and organizational strategies can result in clinically meaningful reductions in burnout and dissatisfaction among physicians; however, more research is needed to establish which interventions are most effective in a specific population. Activities aimed to promote well-being include mentoring, volunteering, and mindfulness and reflection exercises.[17]

The critical threshold of mentoring experiences for UiM residents that would serve to overcome the experienced isolation, attract more UiM students into a residency, or serve as best practices to diminish the additional stress/fear of acceptance by patients is unknown. While the input from our UiM focus groups is consistent with other reports nationally regarding the UiM residency experience, there are limitations to this work. Despite being multi-institutional, our focus groups are still geographically limited to the Southeast United States. The experience of UiM residents in the Southeast compared to other regions of the United States warrants further investigation.

Additionally, the focus groups represent a relatively small sample size and brief time frame; they do not completely reflect the experiences, better and worse, of UiM residents over time. Furthermore, participation was voluntary on the part of residents. Lower participation rates of UiM may have been due to clinical responsibilities or those who feel more isolated, thus causing a selection bias.

The broad feasibility of this study allows for generalized implementation as it encourages embracing diversity and building a narrative for UiM residents to express their responses to unconscious bias and factors contributing to increased stress and burnout regardless of the region or specialty. This descriptive framework may aid in creating an

environment facilitating UiM networks, mentoring, and coaching, which cultivates acceptance rather than isolation.

Given these findings among the UiM residents, a comprehensive approach to retention is suggested, including development of an early UiM local network followed by regular scheduled mentoring with faculty for social and cultural support while transitioning into new roles, and acknowledgement during coaching and advising sessions of the reality of isolation experienced by UiM residents.

Moreover, future efforts may also include the sharing of scripts to build a catalog of responses to unwanted prejudice or unconscious bias for use in US medical programs, career-specific UiM mentoring via either local faculty or a regional network and UiM resident-driven initiatives as a strategy to prevent burnout and promote well-being.

Within this comprehensive approach to understanding the UiM resident's unique needs, we have not only highlighted what is suggested to promote UiM resident retention, but have also recognized the inimitable resilience of the UiM resident and the potential for leadership within their respective current programs and beyond.

Conclusions

The common themes identified in the focus groups were resilience and isolation, both of which may be influenced and affected positively or negatively by social support, mentorship, external expectations, and bias.

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Rachel Harris, MD, MPH, is Adjunct Associate Professor, Morehouse School of Medicine; **Kyle Covington, PT, DPT, PhD,** is Associate Professor, Duke University School of Medicine; **Cristin Colford, MD,** is Clinical Professor, University of North Carolina School of Medicine; **Nancy Denizard-Thompson, MD,** is Associate Professor, Wake Forest School of Medicine; **Michael Contarino, MD,** is Associate Professor, University of North Carolina School of Medicine; **Kimberley Evans, MD,** is Associate Professor, Duke University School of Medicine; **Aimee Zaas, MD, MHS,** is Professor, Duke University School of Medicine; **M. Suzanne Kraemer, MD,** is Chief Quality Officer, VP Clinical Advancement and Patient Safety, Carilion Clinic; and **Diana McNeill, MD,** is Professor, Duke University School of Medicine.

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Corresponding author: Rachel Harris, MD, MPH, Morehouse School of Medicine, rlmereus@yahoo.com, Twitter @RachelHarrisMD1

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