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Retaining Faculty from Underrepresented Groups in Academic Medicine: Results from a Needs Assessment

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Objectives: Academic medical centers can improve the quality of care and address health inequities by recruiting and retaining faculty from underrepresented in medicine (URiM) groups; however, the retention of URiM faculty is a barrier to reaching equity-related goals because URiM faculty are less likely to remain in academia and be promoted compared with their peers. As such, the objective of this study was to determine factors that influence the retention of URiM faculty at large academic centers.

Methods: One-time, semistructured stay interviews were conducted to assess the experiences of URiM faculty at a large academic hospital in Boston, Massachusetts between October 2016 and April 2017. A qualitative researcher coded the transcripts and identified central themes.

Results: The participants (N = 17) were 65% Black/African American and 35% Hispanic/Latinx. The median number of years on faculty was 3 years (range 1–33). The themes identified through the stay interviews were grouped into three domains: areas of strength, challenges to advancement, and suggestions for improvement of support. Participants voiced leadership support in their development, the community of patients, URiM networking opportunities, and mentorship as strengths. The barriers to retention included the lack of transparency and trust in their work, a sense of tokenism, organizational management issues, and implicit biases. The suggested ways to improve support included the expanding of initiatives to include all members of groups URiM, continuing URiM faculty development programs, and increasing funding to support advancement.

Conclusions: This study underscored the importance of supportive leadership, URiM-specific faculty development programs, networking opportunities, and the recognition of achievements as factors that influence the retention of faculty at a large academic medical center. In addition, participants highlighted the need for strong mentor networks and emphasizing sponsorship.

Key Words: academic medicine, faculty development, faculty retention, underrepresented groups

Medicine lacks the racial and ethnic diversity necessary to provide the best care for all patients and create an environment that is ripe for propelling scientific innovation.[1] The National Institutes of Health (NIH) definition of underrepresented in medicine (URiM) in the biomedical sciences includes Black/African American, Hispanic/Latinx, American Indian, Alaska Native, or Native Hawaiian and other Pacific Islanders.[2] Whereas people in these groups comprised 36.2% of the US population in 2019,[3] only 10.8% of active physicians and 9.1% of medical school faculty identify as URiM.[1] The rates of URiM faculty have remained stagnant since 2016.[4,5] Adjusting for population shifts, Black and Hispanic/Latinx individuals were even more underrepresented in 2016 than in 1990 at the assistant, associate, and full professor levels.[4] More recent developments, including the ongoing coronavirus disease 2019 pandemic, are likely to exacerbate the underrepresentation of URiM faculty in academia.

Key Points

- Academic medical centers can improve the quality of care and address health inequities by recruiting and retaining faculty from underrepresented in medicine (URiM) groups.
- Retention of URiM faculty, however, is a major barrier to reaching equity-related goals, as URiM faculty are less likely to remain in academia and be promoted when compared with their peers.
- This study found that supportive leadership, URiM-specific faculty development programs, networking opportunities, and recognition of achievements as major factors that influence retention of faculty at a large academic hospital.

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For example, studies have shown the disproportionate impact of coronavirus disease 2019 on women faculty in academic medicine, which is likely even more pronounced for URiM women faculty.[6]

The benefits of diverse teams are well documented. For example, a diverse workforce brings new ideas to solve complex problems; heterogeneous teams outperform homogenous teams.[7,8] Diverse research teams have more citations when compared with homogeneous teams.[9,10] In addition, greater diversity in medical clinicians reduces patient health disparities.[9,11–14] Furthermore, URiM physicians are more likely to work in underserved communities, care for diverse patient populations and uninsured people,[15] and therefore help in the challenging task of reaching health equity goals.[16]

Although improving racial/ethnic parity across the medical field is important, retention is a major barrier to greater representation in academic medicine. URiM faculty have lower promotion rates to the professor rank and are less likely to be retained in academic medicine.[17] In addition, URiM faculty have lower rates of R01-equivalent and research project grants than non-URiM faculty.[18,19] URiM faculty also are often asked to participate in institutional committees and other service-related activities, likely contributing to less time spent on scholarly activity, fewer peer-reviewed publications, and fewer NIH-funded grants than non-URiM faculty.[17,19,20]

To increase racial/ethnic parity and improve support for URiM faculty, many academic medical centers have created targeted faculty development, mentorship, and peer support groups. As part of these programs, needs assessments are vital tools to identify means to support URiM faculty. Conducting stay interviews is a process designed to explore why people remain at an organization.[21] In this article, we explore findings from a set of stay interviews with URiM faculty in the Department of Medicine at the Boston University School of Medicine to explore strengths, challenges, and suggestions for improvement. The present study adds to the literature by explicitly eliciting suggestions from URiM faculty on measures that may improve retention at academic medical centers.

Methods

Study Design

Participants were recruited from the Department of Medicine at the Boston University School of Medicine as part of a departmental needs assessment. Stay interviews were one-time interviews to explore the experiences of URiM faculty in the Department of Medicine; the stay interviews were not a regular institutional practice but were conducted for this needs assessment. Interviews were not audio recorded to protect participants' confidentiality; instead, the interviewer took notes while conducting the interview. The semistructured interview guide included questions about challenges and opportunities related to being a URiM faculty member at the Boston University School of Medicine, explored factors that contributed to staying at the Boston University School of Medicine, and elicited suggestions to improve their experience (see Table 1 for the interview guide questions). The interviews were conducted between October 2016 and April 2017. The institutional review board at the Boston University School of Medicine determined the study to be exempt.

Data Analyses

The interview notes were coded using an inductive analysis process.[22,23] The research team began with three prominent themes: areas of strength, challenges, and suggestions for improvement. Interview notes were coded inductively, with additional subcodes added as unique factors were identified until all of the interview notes had been reviewed. An experienced qualitative researcher (E.C.) coded all of the interview notes using the final codebook and summarized the findings into overall themes.

Results

Of 24 URiM faculty in the Boston University School of Medicine Department of Medicine, 17 agreed to participate in an interview (70.8% response rate). Participants had been faculty members for a median of 3 years, but their time on faculty ranged from 1 to 33 years. Participants identified as Black or African American (65%), Hispanic/Latinx (35%), and 47% female. Most participants were at the instructor level (53%), and only one participant (6%) was a full professor (Table 2). We identified three themes through the stay interviews: areas of strength, challenges to advancement, and suggestions for improvement.

Areas of Strength

URiM faculty identified the primary strengths of Boston University's Department of Medicine as supportive leadership, engaging professional development support, and a collegial

Table 1. Interview guide questions

1. What have been your positive experiences at the Boston University School of Medicine with regard to your learning, development, and professional growth?
2. What factors contribute to your wanting to continue as a faculty member in the DOM at the Boston University School of Medicine?
3. If you were given the opportunity to redesign your current role, can you make a list of the key factors that you would include in your "dream job?"
4. Are there particular programs or resources you would like to have access to in order to grow or develop further?
5. In what ways, if any, do you think being a URiM faculty member has shaped your experience here?
6. If you were ever to consider leaving the Boston University School of Medicine, what factors (positive or negative) might contribute to that decision?
7. What can the DOM do to improve the experience of being a URiM faculty member?
8. Are there any other comments you'd like to add at this time?

DOM, department of medicine; URiM, underrepresented in medicine.

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Table 2. Participant characteristics (N = 17)

Years on faculty	3 [1–33]
Female sex	8 (47)
Race/ethnicity	
Black/African American	11 (65)
Hispanic/Latinx	6 (35)
Academic rank	
Instructor	9 (53)
Assistant professor	5 (29)
Associate professor	2 (12)
Professor	1 (6)

Values are median [range] or n (%).

environment dedicated to serving the underserved. First, participants described that the academic medical center "leadership understands that young faculty need to be supported in terms of development," indicating that leaders were invested in developing early-career faculty and listening to feedback. Second, many expressed that the faculty development program and program mentors were influential in their decision to remain at the institution. One faculty development program was URiM specific, which was frequently praised. The faculty development programs provided "empowerment and coaching," helped faculty to "realize that others have had similar experiences," and recognized their self-worth within the institution. Third, participants identified that conversations about URiM representation in medicine are encouraged and part of the broader dialogue. Another major stay factor identified was the Boston University School of Medicine's diverse patient population and the collegial environment. Finally, faculty members enjoyed their colleagues and the institution's mission to "serve the underserved."

Challenges to Advancement

URiM faculty identified critical challenges, including gaps in transparency and trust in their work, high workload, work expectations, feeling a sense of tokenism, and reported experiences of racism and implicit bias. First, URiM faculty reported that they experienced gaps in the transparency of decision making and a lack of trust in their work compared with non-URiM peers. Participants reported a lack of transparency in promotion decisions, office space allocation, and assignments of support staff. One participant described needing to replicate experiments more times than their peers before the research team would accept their results as valid. Second, URiM faculty identified several interconnected concerns around high workload and expectations. Participants identified difficulty obtaining external funding and reported inconsistent funding support across sections. URiM clinical faculty members reported high clinical workload and expectations, including spending "weeknights and late nights" charting. These high demands negatively affected their quality of life and professional development. Third, some URiM faculty members reported feeling a sense of tokenism. They reported being asked to do additional work, such as serving on committees, because of their race/ethnicity or sex. One interviewee reported that in an NIH study section, she was "the only female in the room as an assistant professor because they needed a woman." Finally, implicit bias was another barrier to advancement identified by URiM faculty. URiM faculty reported implicit bias and microaggression by patients, colleagues, and leadership, including assumptions that URiM faculty were technicians or nurses. URiM faculty reported countering these actions by wearing white coats to establish their status. Participants continued to feel frustrated by a lack of ally support from other clinicians or by leadership; one participant reported that "no one steps in to say anything."

Suggestions for Improvement

URiM faculty identified several ways to improve their experience at the Boston University School of Medicine. First, they identified that within the institution, URiM connoted Black or African American and wanted to broaden the popular definition to include other URiM groups such as Hispanic/Latinx or Native American/Pacific Islander. Second, participants encouraged the expansion and continuation of URiM-specific faculty-development programs. They suggested streamlining resources and opportunities to support faculty. Faculty development programs should include sessions that address academic writing, negotiation, and peer mentoring. Noting gaps in funding support, URiM faculty suggested providing startup grants to bridge faculty funding. Third, participants suggested making race and racism a part of programs on campus to continue to focus on the lack of racial/ethnic parity in medicine. These programs should include training in implicit bias or overt racism, and for "bystanders who would see something, but not say anything." Finally, participants wanted increased institutional focus on hiring URiM faculty and promoting URiM faculty to leadership positions across campus.

Discussion

In stay interviews to explore supports, challenges, and avenues to improve the experience for URiM faculty, participants identified key supports of their work from leadership, professional development support, and a collegial environment. Challenges to their advancement included a lack of transparency and trust, high workloads and work expectations, feeling a sense of tokenism, and reported experiences of racism. Their suggestions for improvement focused on broadening the definition of URiM to create a larger community, expanding supports for URiM faculty, increasing the prominence of conversations around race and racism across the institution, and increasing the focus on hiring and promoting URiM faculty. We observed that leadership plays an essential role in investing in the advancement of URiM faculty and incorporating feedback to support URiM faculty. Faculty development programs focused on the unique challenges and experiences of URiM faculty also were highly valued by participants. The institution's mission

to care for the underserved and its collegial environment were additional strengths.

Participants, however, reported some significant barriers to their success. Although participants described challenges that have been described across academic institutions, such as the high clinical workload and the lack of administrative support, interviewees also described challenges that are unique to the URiM experience. For example, participants described experiences in which they were not considered trusted and respected members of the team. Instead, their findings and contributions were scrutinized more than those of non-URiM peers. In addition, participants described a lack of transparency around the allocation of resources, including support staff and office space. Furthermore, participants described what has been dubbed the "minority tax," which refers to additional, often uncompensated committee and service activities that often are assigned to URiM faculty.[20]

Prior studies have demonstrated similar challenges that URiM faculty face, with suggested strategies such as mentorship programs,[24] dedicated faculty development programs,[17,25] and engagement of a senior leader champion to support URiM faculty.[17] In a systematic review from 2014, Rodríguez and colleagues recommended faculty development programs, networking, mentoring, institutional culture training, seed funding, training (research methods, institutional culture, teaching), and career advising as grounded in findings from the review.[26] Beyond programs to support URiM faculty themselves, other studies have explored conducting bystander training or training on the impact of racism on health and health care.[27,28] Although some of the themes such as the minority tax have previously been described, the present study underscores the importance of supportive leadership, as well as URiM-specific retention, advancement, and vitality programs. These findings are essential to reaching the stated equity goals not only from the Centers for Disease Control and Prevention but also from many medical centers around the country during the racial justice movement beginning in 2020.[16] Retaining URiM faculty is a crucial component of reaching these goals because data show that URiM faculty are more likely to work with diverse patient populations and in underserved communities.[15]

Based partly on these data, the Faculty Development and Diversity Office for the Boston University School of Medicine instituted multiple new programs. The Department of Medicine was one of 19 sites in the country participating in the Bias Reduction in Internal Medicine trial to help faculty recognize and respond to these everyday indignities experienced by URiM.[29] Many faculty who were not URiM felt unprepared to respond when they observed microaggressions or other events involving URiM faculty, staff, or patients. The Boston University Medical Campus also developed a vignette-based training to assist faculty to develop potential strategies to intervene when observing or experiencing microaggressions.

In addition, the Department of Medicine created a department-wide reading group to discuss and share thoughts about race and racism in America. In the first year, the book club met virtually four times to discuss chapters of *So You Want to Talk About Race* by Ijeoma Oluo. Amidst the growing racial justice movement, faculty and leadership thought it was important to create a space outside clinical space to discuss race and racism. During the 2021–2022 academic year, we expanded the book club to the larger School of Medicine and offered three sessions in the fall and in the spring to discuss *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present* by Harriet A. Washington.

In addition, the office expanded several faculty development programs. The existing URiM faculty development program was enhanced to create more opportunities for senior and peer mentoring, writing support, and discussion among colleagues. An additional URiM faculty development program for more mid-level faculty was added to enhance leadership skills.[30] In addition, an academic writing program was created to provide writing support to all of the faculty at the Medical Center.

Programs interested in increasing the retention of URiM faculty should consider implementing the following elements at their institutions: supportive leadership committed to the advancement of URiM faculty and investment in the development of URiM faculty; URiM-specific faculty development programs designed to address the unique experience of URiM faculty in academic medicine; institutional commitment to serving the needs of URiM patients; creation of inclusive clinical and research environments in which the contribution of URiM faculty is valued and recognized; transparency in the allocation of resources and support; addressing the disproportionate impact of uncompensated committee and service activity on URiM faculty; and expansion of allyship to address implicit bias, microaggression, and racism (Table 3).

There are several limitations to this study. It was a small qualitative study, and despite the moderate response rate (70%), the population of URiM faculty in the Department of Medicine was small. The generalizability of the findings to other institutions is unknown. Like all qualitative studies, the identification of

Table 3. Elements to institute to support URiM faculty in academic medicine

- Supportive leadership committed to the advancement of URiM faculty and investment in the development of URiM faculty.
- URiM-specific faculty development programs designed to address the unique experience of URiM faculty in academic medicine.
- Institutional commitment to serving the needs of URiM patients.
- Creation of inclusive clinical and research environments in which the contribution of URiM faculty is valued and recognized.
- Transparency in the allocation of resources and support.
- Addressing the disproportionate impact of uncompensated committee and service activity on URiM faculty.
- Expansion of allyship to address implicit bias, microaggressions, and racism (eg, through bystander training).

URiM = underrepresented in medicine.

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themes was potentially subjective. To protect the confidentiality of the participants, we relied on interview notes instead of using verbatim transcriptions. We submit that we captured the key messages from the interviews in the notes. In addition, our sample does not include all of the members of the URiM groups in medicine because we had no individuals who identified as American Indian, Alaska Native, Native Hawaiian, or other Pacific Islander.

Stay interviews are an important and underutilized tool in academic medical centers. Stay interviews should be more widely used to help understand the needs of URiM faculty and determine measures that could address the specific challenges faced at each institution. The findings of these stay interviews underscore the importance of leadership that not only welcomes URiM faculty members to the decision-making table but also listens to their ideas and implements suggestions. They also underscore the importance of programs specifically targeting the unique challenges faced by URiM in medicine. Programs are needed to provide the tools on how to navigate challenges in academic medicine and create safe spaces where URiM faculty can share their experience with other URiM faculty and support one another. Participants also underscored the importance of strong mentoring networks and specifically emphasized the importance of sponsorship.

Future work must focus on developing and evaluating interventions to improve the retention and advancement of URiM faculty. Although increasing diversity in medical education can reduce health disparities,[11–14] more work needs to examine how to improve and sustain URiM faculty recruitment, retention, advancement, inclusion, and belonging.

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References

1. Association of American Medical Colleges. US physician workforce data. Diversity in medicine: facts and figures. https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019. Published 2019. Accessed November 10, 2022.
2. National Institutes of Health. Notice of NIH's interest in diversity. https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-031.html. Accessed November 10, 2022.
3. US Census Bureau. Quick facts. https://www.census.gov/quickfacts/fact/table/US/PST045219. Published 2019. Accessed November 10, 2022.
4. Lett LA, Orji WU, Sebro R. Declining racial and ethnic representation in clinical academic medicine: a longitudinal study of 16 US medical specialties. *PLoS One* 2018;13:e0207274.
5. Merchant JL, Omary MB. Underrepresentation of underrepresented minorities in academic medicine: the need to enhance the pipeline and the pipe. *Gastroenterology* 2010;138:19-26.e1–e3.
6. Spector ND, Overholser B. COVID-19 and the slide backward for women in academic medicine. *JAMA Netw Open* 2020;3:e2021061.
7. Earley CP, Mosakowski E. Creating hybrid team cultures: an empirical test of transnational team functioning. *Acad Manag J* 2000;43:26–49.
8. Takeuchi J, Kass SJ, Schneider SK, et al. Virtual and face-to-face teamwork differences in culturally homogeneous and heterogeneous teams. *J Psychol Issues Organ Cult* 2013;4:17–34.
9. Freeman RB, Huang W. Collaboration: strength in diversity. *Nat News* 2014;513:305.
10. AlShebli BK, Rahwan T, Woon WL. The preeminence of ethnic diversity in scientific collaboration. *Nat Commun* 2018;9:1–10.
11. Walker KO, Moreno G, Grumbach K. The association among specialty, race, ethnicity, and practice location among California physicians in diverse specialties. *J Natl Med Assoc* 2012;104:46–52.
12. Gomez LE, Bernet P. Diversity improves performance and outcomes. *J Natl Med Assoc* 2019;111:383–392.
13. Hsueh L, Hirsh AT, Maupomé G, et al. Patient–provider language concordance and health outcomes: a systematic review, evidence map, and research agenda. *Med Care Res Rev* 2021;78:3–23.
14. Schouten BC, Cox A, Duran G, et al. Mitigating language and cultural barriers in healthcare communication: toward a holistic approach. *Patient Educ Couns* 2020;S0738-3991(20)30242–1.
15. Marrast LM, Zallman L, Woolhandler S, et al. Minority physicians' role in the care of underserved patients: diversifying the physician workforce may be key in addressing health disparities. *JAMA Intern Med* 2014;174:289–291.
16. Centers for Disease Control and Prevention. Attaining health equity. https://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/overview/healthequity.htm#:~:text=Achieving%20health%20equity%2C%20eliminating%20disparities,Control%20and%20Prevention%20(CDC). Published October 25, 2013. Accessed November 10, 2022.
17. Kaplan SE, Raj A, Carr PL, et al. Race/ethnicity and success in academic medicine: findings from a longitudinal multi-institutional study. *Acad Med* 2018;93(4):616–622.
18. Nikaj S, Roychowdhury D, Lund PK, et al. Examining trends in the diversity of the US National Institutes of Health participating and funded workforce. *FASEB J* 2018;32:6410–6422.
19. Stevens KR, Masters KS, Imoukhuede PI, et al. Fund Black scientists. *Cell* 2021;184:561–565.
20. Carson TL, Aguilera A, Brown SD, et al. A seat at the table: strategic engagement in service activities for early career faculty from underrepresented groups in the academy. *Acad Med* 2019;94:1089–1093.
21. Robeano K. "Stay interviews" to improve retention. *Nurs Manage* 2017;48:7–8.
22. Strauss A, Corbin J. Grounded theory methodology: an overview. In: Denzin N.K., Lincoln Y.S., eds., *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications; 1994:273–285.
23. Saldaña J. *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage Publications; 2015.
24. Feldman MD, Arean PA, Marshall SJ, et al. Does mentoring matter: results from a survey of faculty mentees at a large health sciences university. *Med Educ Online* 2010;April 23:15.
25. Guevara JP, Adanga E, Avakame E, et al. Minority faculty development programs and underrepresented minority faculty representation at US medical schools. *JAMA* 2013;310:2297–2304.
26. Rodríguez JE, Campbell KM, Pololi LH. Addressing disparities in academic medicine: what of the minority tax? *BMC Med Educ* 2015;15:1–5.
27. White-Davis T, Edgoose J, Speights JB, et al. Addressing racism in medical education an interactive training module. *Fam Med* 2018;50:364–368.
28. Edgoose J, Anderson A, Speights JB, et al. Toolkit for teaching about racism in the context of persistent health and healthcare disparities. Society of Teachers of Family Medicine. Published 2017. https://resourcelibrary.stfm.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=cf40991e-96e9-3e15-ef15-7be20cb04dc1&forceDialog=0. Published 2017. Accessed November 10, 2022.
29. Sue DW, Capodilupo CM, Torino GC, et al. Racial microaggressions in everyday life: implications for clinical practice. *Am Psychol* 2007;62:271–286.
30. Boston University Medical Campus Faculty Development & Diversity. Louis W. Sullivan, MD, academic leadership program. https://www.bumc.bu.edu/facdev-medicine/all-bumc/academic-leadership-program. Published 2021. Accessed November 10, 2022.