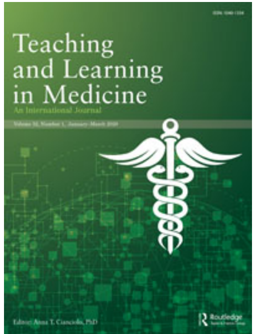

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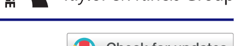

OBSERVATIONS

An Institutional Approach to Fostering Inclusion and Addressing Racial Bias: Implications for Diversity in Academic Medicine

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ABSTRACT

Issue: While an increasingly diverse workforce of clinicians, researchers, and educators will be needed to address the nation's future healthcare challenges, underrepresented in medicine (UIM) perspectives remain relatively absent from academic medicine. *Evidence*: Prior studies have identified differential experiences within the learning environment, lack of social supports, and implicit bias in evaluations as barriers to the academic interests and successes of UIM learners. The UCSF Differences Matter initiative has shown that interventions focused on recruiting diverse academic faculty, building strong social communities, facilitating cross-cultural communication and understanding, and mitigating disparities in summative assessments can positively affect the educational experience for UIM learners and contribute to their academic success. *Implications*: Institution-level initiatives are needed to foster a culture of inclusion, teach cultural humility, and build a culture of trust within academic medicine. Such initiatives should aim to teach a common language to discuss diversity issues and place the responsibility of fostering inclusion on all members of the academic community. Our own institutional experience with systemic cultural reform challenges others to develop novel approaches toward fostering inclusion in academic medicine.

KEYWORDS
education; diversity; inclusion; implicit bias; racial bias

Background

Underrepresented in medicine (UIM) voices and perspectives are missing from academic medicine. The percentage of UIM medical students, residents and faculty in academic medicine continues to be disproportionately low relative to the general population.[1–3] Increasing UIM representation in medicine improves training for all learners by broadening classroom discussions, preparing learners to work in diverse cultural settings, and promoting health equity.[4–6] In a racially diverse state like California, for example, UIM physicians from a variety of specialties are more likely to practice in medically underserved and primary care health professional shortage areas than non-UIM physicians.[7] As the patient population of the United States becomes increasingly diverse, diversity among healthcare providers and educators will be important for providing culturally appropriate care, reducing health disparities, and increasing patient satisfaction with their care.[5,8]

Ultimately, diversity matters

The challenge of increasing diversity in academic medicine begins with understanding the primary barriers to success faced by UIM students, particularly their experiences within the learning environment. Students identify the importance of social support (i.e., emotional support, cultural connection, and career encouragement) as a main factor in promoting academic success.[9,10] UIM students find support through not only family, friends, and colleagues, but also advisors, mentors, and administrators who help them with their professional development.[9] Belonging to a community within medicine provides mentorship, scholarly opportunities, and mutual understanding of personal hardships. Connecting to a community outside of medicine provides an outlet from the academic environment and an escape from racial isolation.[10] Unfortunately, non-UIM colleagues and educators sometimes lack understanding of their students' personal experiences, thereby undermining UIM students' ability to form cross-cultural social groups.

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All students need social support to succeed, but UIM students have more difficulty establishing peer support networks and good peer working relationships compared to non-UIM students in medicine. They also report feeling less satisfied with the social environment because of isolation, discrimination, and feeling perceived as intellectually inferior.[9,10] UIM students are also more likely to face racial discrimination and harassment in the classroom and the clinical environment by classmates, residents, faculty, and patients.[9,10] Moreover, they report lower satisfaction with the learning environment, including timeliness of their performance evaluations, responsiveness to their concerns, and receipt of adequate constructive feedback.[10] Finally, they report feelings of lack of confidence, self-doubt, and self-consciousness about their identity and legitimacy in the social environment.[9] As a result of these insecurities, they are less likely to seek academic assistance out of fear of being perceived as less competent than their peers.[11]

Another important barrier to success faced by UIM students stems from a documented legacy of scoring differences across racial and ethnic groups in the usual tools used to assess clinical performance. On the mini-clinical performance exam (mini-CEX) using a series of standardized patient (SP) encounters, white students scored higher than Asian and black students on their communication scores and were perceived as more "patient-centered," regardless of the student's primary language.[12] The differences attributed to ethnicity disappeared, however, once the authors adjusted for differences in the students' level of impersonal attitudes toward the doctor-patient relationship. On objective structured clinical examinations (OSCEs), SPs scored black male students lowest on physician empathy, compared to white students or black female students, regardless of SP ethnicity. Notably, the self-reported empathy of black students (using the Jefferson Scale of Physician Empathy) was discordant with SP perceptions of physician empathy regardless of gender, raising the possibility of racial bias or stereotype in OSCE evaluations.[13] Moreover, SPs reported being more satisfied with their care from a racially concordant student pairing compared to a racially discordant student pairing.[14] A similar difference in assessment related to ethnicity has also been shown in the clinical environment with faculty and residents. UIM students with similar clerkship grades reported receiving more negative comments and fewer positive comments during their clerkships than white students.[15] Having more racially diverse SPs, supervising faculty, and residents may mitigate some of these differences in clinical skills assessment.

Racial bias in formative assessments during clinical rotations potentially introduces bias into the summative assessments of UIM students. A recent textual analysis of Medical Student Performance Evaluations (MSPEs), an integral part of a student's application for residency, showed differences in words used to describe UIM students compared to non-UIM students. White students were more likely to be described using words such as "standout" or "exceptional," whereas black students were more likely to be described as "competent," even after controlling for US Medical Licensing Examination (USMLE) Step I scores.[16] Furthermore, white students were more likely than black, Latino, and Asian students to be inducted into the Alpha Omega Alpha Honor Society (AOA), even after adjusting for leadership and community service. While there was a strong association between USMLE score and AOA, within the top quartile of USMLE scores, Asian students were still less likely than white students to be chosen for AOA.[17] The racial disparities in these summative assessments and distribution of awards in medical school may directly affect a UIM student's competitiveness as a candidate for residency.

The barriers faced by UIM learners are systemic in nature. Cultural differences, combined with implicit bias, reduce the quality of the learning environment and change educational outcomes for UIM students. To increase diversity in academic medicine, such barriers will need to be removed. On the basis of this evidence and our experience with diversity and inclusion at our own institution, the most successful intervention is a comprehensive, institutional approach toward creating an environment of inclusion, teaching cultural humility, building collaboration and trust, and recognizing the impact of implicit bias in evaluations and recruitment. Here, we present the multi-pronged approach adopted at the University of California – San Francisco (UCSF) toward creating and maintaining a diverse, equitable, and inclusive academic environment. This initiative, known as Differences Matter (https://differencesmatter.ucsf.edu), is a $10 million commitment over 5 years focused on leadership, climate/recruitment, education, clinical care, research, and pipeline/outreach.

Cultivating an institutional environment of inclusion

Institutions must foster an environment of inclusion, both explicitly and implicitly. A mission statement that emphasizes a commitment to diversity sends a

positive message to UIM learners and provides accountability for the institution.[18] UIM students have identified unspoken messaging in the lack of ethnic diversity among institutional leaders, patients referenced in exam questions, and faces featured in portraits lining lecture halls as contributing to an environment in which they feel 'othered,' or segregated from the larger student population.[19] Furthermore, UIM students sometimes report feeling disconnected from the larger academic community when exclusively funneled to ethnically-matched administrators for support. This action conveys the message that UIM student issues may not be relevant to the student body as a whole.[19] Indeed, even when an institution prioritizes diversity, it can still contribute to othering. For example, when only UIM faculty and students (rather than all members of an institution) are asked to promote diversity, UIMs are being treated as other.[19]

At our institution, contributions to a broad definition of diversity are encouraged of the entire academic community and our Office of Diversity and Outreach (ODO) monitors the university website regularly to ensure that the featured images and stories are intentionally inclusive and representative of our diverse community. These simple messages of belonging may contribute positively to the learning environment as well as assist with recruitment. For example, medical school websites may be a critical resource and recruitment tool for prospective UIM students who do not have access to other sources of information.[20] Although there are few studies of the impact of social representations on the learning environment for UIM medical students, there is some evidence to suggest that a culturally engaging campus environment is positively correlated with a sense of belonging, academic self-efficacy, motivation, and increased probability of success in diverse college students as well as dental and medical students.[20,21]

An important component of an inclusive and supportive environment for learners is the diversity of an institution's residents and faculty, who provide career mentorship and social support.[9–11] Recruitment and retention of UIMs at all academic levels unburdens UIM students and educators by building community and distributing diversity efforts among a larger pool of individuals. For students, initiatives such as scholarships for visiting student rotations are important for recruiting UIM learners and unburdening them from financial stress, a potential barrier to staying in academic medicine.[22] In our institution's emergency medicine residency program, for example, five $1,500 scholarships are awarded to visiting UIM students every year for completing a clinical rotation in our department. Since implementation, the percentage of incoming UIM interns to our residency program has increased from 10% to being consistently above 30% each year over the last 4 years.

Retention of UIM students as residents further strengthens support networks, which is, in turn, crucial for supporting UIM students in their own academic pursuits.[9] The disparity in faculty responsibility for diversity service work may be mitigated by weighing diversity-related service activities as an important factor in the promotions process. UIM faculty may be provided additional support (e.g., salary, administrative assistance, protected administrative time) to offset the disproportionate burden of their nonacademic work as an acknowledgement of their positive contributions to the institution. Other types of support might include career counseling, grant writing workshops, academic file preparation assistance, and proactive mentoring.[23]

Inadequate faculty diversity and the minority tax – the disproportionate burden placed on UIM faculty to participate in recruitment and diversity-related service – may hinder the professional development and promotion of UIM faculty.[24] Currently, UIM faculty and residents may feel obligated to serve as mentors to students or be asked to sit on committees that require significant time demands but do not necessarily contribute to their own academic success. Because these service activities are traditionally not as valued by institutions for promotion as compared to scholarly work, UIM faculty may feel less supported in their career development and question whether the school is truly committed to diversity.

To ensure faculty equity in workloads at UCSF, all faculty must demonstrate their commitment to diversity and inclusion regardless of their self-identified ethnicity by describing their activities for faculty recruitment and promotion. Institutional equity advisors are available to support departmental recruitment efforts by recommending best practices, such as ensuring that recruitment committee membership is sufficiently diverse and requiring all applicants to highlight their own contributions to diversity. Moreover, short lists for recruitment efforts are reviewed by the ODO to ensure that they are demographically reflective of the larger applicant pool. To further support junior faculty in their careers, we instituted the John A. Watson Scholars Program (https://medschool.ucsf.edu/john-watson-faculty-scholars), which provides salary support and grants of up

to $75,000 for a maximum of 3 years for recruiting and retaining young faculty members who have demonstrated an outstanding commitment to diversity and service. These interventions have contributed to a two-fold increase in the number of black and Latino faculty members within seven years.

Teaching cultural humility

Navigating institutional racism introduces a significant burden on UIM learners in academia, a burden not experienced by their non-UIM peers.[25,26] In order for UIM learners to excel, teaching institutions must recognize this phenomenon and offload the responsibility of navigating systems of racism from learners.[26] Currently, UIM learners are more likely to experience a less supportive and less positive learning environment during their medical education.[9,26] They are also more likely to be subject to discrimination and racial harassment. In the 2017 AAMC Graduation Questionnaire, 7% of responding medical students indicated that they had been subject to racially or ethnically offensive remarks by faculty, staff, or other learners at least one time during their education.[27] Institutions must seek to create an environment in which UIM individuals are empowered to report their negative experiences and have confidence that institutions will act on their behalf by rehabilitating systems and individuals that demonstrate bias. As an example, our institution has developed an easily accessible reporting process through the Office for the Prevention of Harassment and Discrimination (OPHD) that promptly investigates all reports of reported discrimination on the basis of membership in a protected group (http://ophd.ucsf.edu/complaint-resolution). This new process has led to an increase in the number of complaints filed in the last few years, presumably because of improving accessibility, but potentially because of increasing incidence of events or recognition that these behaviors are unacceptable. Although the OPHD has not yet identified the primary driver of this phenomenon, it now has a better understanding of incidents related to discrimination on our campus to further develop interventions and refine processes to prevent future events.

Curricular design and educational interventions such as cultural humility training for faculty and learners can facilitate communication between individuals from different social groups and provide tools for dealing with discrimination.[18] Cultural humility describes a process in which individuals engage in self-reflection and self-critique related to cultural identity and awareness of the perspective of others, with the primary goal to strengthen relationships with others.[28] Cultural competence, by contrast, describes a knowledge and understanding of another person's culture and adapting one's approach to healthcare that specifically incorporates cultural preferences.

A primary goal of our Differences Matter initiative is to teach and share a common language about diversity and inclusion so that students and faculty can engage each other in fruitful discussion regarding these topics. Over the past two years, more than 400 faculty have completed our 1-day skills-based cultural humility training and small group discussions focused on exploring self-identity and privilege, identifying microaggressions, and practicing allyship; some of these foci were identified by our institutional climate assessment on diversity, equity, and inclusion. A preliminary survey of the first 200 faculty participants showed an increase in faculty comfort with identifying microaggressions at 3 months post-training. The initiative aims to train additional faculty leaders and has held each departmental chair accountable for encouraging their faculty to participate in these trainings. Although our program is in early stages, we recognize the need for institutions to collect climate survey data on a regular basis in order to determine impacts and implement lessons learned. In addition, each department chair is required to submit a Chair Accountability Report describing departmental efforts to promote diversity and inclusion each year. A typical report includes a description of activities supporting the recruitment of UIM faculty and residents, mentorship of UIM students, numbers of UIM students rotating, interviewing, and matching within a department, and programmatic and educational faculty efforts.

Cultural humility training in isolation is not enough and risks further marginalizing issues of UIM inclusion. Cultural inclusivity must also be an integral component of curriculum itself. Within undergraduate medical education, one institution successfully cultivated an inclusive learning environment by offering a pre-clinical course focused on healthcare disparities, giving medical students the opportunity to speak from personal experiences on issues of race, ethnicity, and health.[11] Other educators have suggested implementing curricular initiatives by avoiding the routine use of race and ethnicity as a fixed entity or simple association with genetic mutations, but rather a reflection of the social experience or environmental context.[29]

Our institution's new medical school curriculum integrates social justice, cultural humility, and health

equity throughout the four years of undergraduate medical education. During new student orientation, students are immediately introduced to race, skin color, genetics, and social determinants of health and their relationships to patient outcomes. In the preclinical years, the curriculum consists of dedicated learning blocks to explore social science approaches to understanding healthcare and covers a range of topics including advocacy, gun violence, addiction and recovery, and social identity. As students prepare for their clinical rotations, they participate in discussions on race and the diagnostic process and are challenged to identify social, economic, and political forces affecting patient care. These types of courses may potentiate a better understanding and appreciation of cultural differences. A helpful resource, the Tool for Assessing Cultural Competence Training developed by the Association of American Medical Colleges, can be used to help identify gaps or inconsistencies in curricula relating to cultural humility.[30]

Building collaboration and trust

An individual's fear that his or her performance might confirm a negative stereotype of the group to which he or she belongs, also known as stereotype threat, has been shown to negatively affect academic performance among UIM students.[11] UIMs often feel pressured to represent their entire community in the classroom and the clinical environment. They also may feel more apprehensive about seeking assistance when falling behind academically for fear that this will reflect poorly on them as race representatives.[11] Because remediation is an important component of any education program, institutions should be aware that UIM and non-UIM students may experience this process differently.[11] De-stigmatizing requests for help and increasing coaching for students on academic probation or who self-identify a need for additional academic support represent an opportunity to create a more positive learning environment for UIM and non-UIM students alike. An institutional approach to remediation that emphasizes professionalism, mastery of learning, and a coaching relationship with a remediation faculty may encourage UIM students to ask for help.[31]

While evidence for the utility of specific programmatic and policy changes to reduce negative race-related experiences and improve academic outcomes of UIM students is lacking,[10] student interviews suggest that a noncompetitive class culture can promote collegiality, collaboration, and class cohesiveness.[11] Moreover, because UIM students often feel more comfortable around diverse peers, institutions might consider offering them a central space to find resources and engage with peers and mentors, particularly when having diverse peers is so essential to enhancing their learning.[11] The Multicultural Resource Center at UCSF was created to provide a safe space for UIM students, allowing them to engage with members of the institutional and broader communities. Collaboration with the local Sinkler Miller Medical Association chapter (http://www.sinklermiller.org) has also helped to unite a critical mass of UIM health care professionals. These are examples of opportunities to build community that are important for building a critical mass of UIMs in academic medicine and mitigating social isolation.[11]

Recognizing the impact of implicit bias

A merit-based academic environment is presumed to be relatively immune from bias but recent studies have shown otherwise.[16,17,27] Current student evaluation processes are not comprehensive, focus on test-taking skills, and may not accurately measure student achievement of clinical competencies. Studies have shown that current assessments may be influenced by instructor biases, learner experiences, and the learning environment.[12,13,15,32] We recommend that institutions recognize the biases inherent in these common evaluation tools and work toward creating more accurate measures of competency as well as deliberately reconstructing their definitions of excellence to account for the different yet comparably admirable talents of trainees. As an example, when our ODO analyzed undergraduate medical education assessment strategies, it identified a homogeneous OSCE evaluator group and subsequently recommended hiring more diverse standardized patients; while this particular intervention may not necessarily eliminate bias, we feel that it is important to have different perspectives represented in our standardized patient assessments. The UCSF educational curriculum and evaluation system undergoes constant analysis using this lens.

Another relatively simple way to mitigate the effects of bias is to educate evaluators on the power of implicit bias. Implicit bias has been shown to favor whites and males regardless of the racial or gender group of the test taker. The most widely used tool for identifying implicit bias is the Implicit Association Test (IAT).[33] The IAT is an online tool that measures the strength of an individual's automatic association between words and images and interprets the associations as the strength to which

an individual holds a particular societal stereotype. Although there is controversy about whether IAT results accurately reflect an individual's actual biased behavior (i.e., its validity) and test-retest reliability of those results, it can still be used to promote faculty discussion on implicit bias and be one part of a comprehensive implicit bias training.[34] There is some evidence that IAT results can highlight the relevance and perceived need for bias reduction in faculty evaluators and may directly affect the quality of faculty evaluations and decrease disparity in evaluations between racial groups.[15,35]

Finally, studies have shown that the traditional approach to residency selection, based on summative evaluations and award distributions (both of which may be racially biased), has a detrimental impact on diversity within residency programs.[16,17,36] We would recommend that all admissions committee members receive comprehensive implicit bias training, which might include taking the IAT prior to reviewing applications, and learning to approach applications holistically rather than simply focusing on knowledge acquisition as a measure of academic performance. For example, some personality traits (e.g., openness, conscientiousness, and grit) have been shown to be better predictors of professional success in medical school.[37,38]

Conclusion

As the US population becomes increasingly diverse, an equally diverse workforce of clinicians, researchers, and thinkers will be needed to address the nation's future healthcare challenges. Diversity is not attained at the expense of excellence; diversity promotes excellence and contributes to our nation's health and wellbeing. Based on this limited evidence, the extensive literature on the UIM learner experience, as well as our own experience with diversity initiatives, suggest that the best approach toward advancing equity and inclusion is a comprehensive institutional initiative aimed at cultivating an inclusive environment, teaching cultural humility, and building collaboration and trust within the entire academic community. Specific interventions should include recruiting and retaining diverse academic faculty and residents, teaching cultural humility and a common language to discuss diversity and inclusion, and ensuring that social representations of the institution are diverse and inclusive. Promoting an inclusive academic environment is the responsibility of the entire medical community and will require dedicated time, financial resources, and curiosity. We challenge institutions to develop novel approaches toward increasing diversity, pursuing equity, and fostering inclusion.

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