More Than Words: A Vision to Address Bias and Reduce Discrimination in the Health Professions Learning Environment

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Abstract

Bias and discrimination are embedded within the history, norms, and practices of the health professions institution, and their negative impacts are pervasive in the health professions learning environment. These forces impair the ability to take care of patients, recruit and support diverse health care providers, and prepare the next generation of clinicians for practice. Fortunately, there are effective interventions and strategies for addressing bias and discrimination within learning environments and to both prevent and ameliorate their negative effects. This Perspective lays out a vision for health professions learning environments that are free from bias and discrimination and makes 5 recommendations, with supporting actions, that will help the leaders of health care institutions achieve this goal.

Inequity is pervasive in health care. Through historical injustices and modern perpetuations, marginalized communities have a lower opportunity for good health compared with socially advantaged groups.[1,2] This inequity is demonstrated through persistent disparities in access to care, quality of care, and health care outcomes for these communities.[3–7] Not only are provider-held biases and discrimination implicated as contributors to health inequities,[8–11] but reports of bias and discrimination experienced by providers and trainees are common[12–14] and create differential opportunities for learning, growth, and overall well-being. Taken together, there is a pressing urgency to transform health professions education to reduce and prevent the negative effects of bias and discrimination in our learning environments.

Fortunately, there is more evidence on how to reduce bias and discrimination than most health professionals are aware of. Below, we provide a framework of evidence-based approaches that can be used to reduce bias and discrimination in learning environments and better prepare the next generation of health professionals to care for all patients, regardless of background. Addressing bias and discrimination can be daunting, but through deliberate and systemic change, we can reduce their effects and promote the growth and well-being of individuals on both sides of the stethoscope.

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Vision and Guiding Framework

We envision a health care learning environment deliberately structured to reduce bias and discrimination on all levels through strong institutional leadership, accountability, adequate resource allocation, and the implementation of interventions that are data driven and continually evaluated for effectiveness in reaching measurable goals. To achieve this vision, we believe that institutional leaders should follow 5 recommendations and associated approaches outlined in this paper (see Table 1):

- Create systems to identify and address bias and discrimination
- Make the reduction of bias and discrimination an institutional priority
- Ensure comprehensive curricula to reduce bias and discrimination
- Ensure critical diversity in the health professions
- Create an institutional culture of respect, inclusion, and equity

Vocabulary

In this vision, the health professions learning environment (HPLE) is a complex space composed of individuals, relationships, and organizations that are strongly influenced by the larger social context.[15,16] Bias and discrimination operate, impact, and can be reduced in each of these spaces.

Biases are preconceived notions based on beliefs, attitudes, and/or stereotypes about people pertaining to certain social categories that can be implicit or explicit.[17] Because biases can be based on stereotypes rather than beliefs, an individual can hold a negative bias toward a group without believing that negative bias is true of the group. Nevertheless, biases based on stereotypes rather than beliefs may still affect behavior.

Discrimination describes inequitable treatment or impact of general policies and practices on members of certain social groups that result in advantage or disadvantage.[18] While bias describes thought processes and cognition, discrimination describes behavior and resultant impacts on individuals and communities. Discrimination does not have an underlying cause inherent in its definition and can be driven by various forces.[18] Therefore, while bias can lead to discriminatory behavior, it does not always. Notably, both individuals and institutions can be discriminatory.

These distinctions do not absolve us from the responsibility of recognizing and reducing the negative effects of bias and discrimination in the HPLE. They instead serve as a starting point from which to understand that this issue affects everyone and provides a shared understanding from which to move forward in this important work.

Table 1
Recommendations to Reduce Bias and Discrimination in the Health Professions Learning Environment

Recommendation	Approaches
Create systems to identify and address bias and discrimination	Identify experiences of bias and discrimination within the health professions community.
	Identify health care inequities throughout the medical institution on key metrics.
	Identify disparities in recruitment and opportunity within the health professions community.
	Evaluate current training across the institution focused on reducing bias in health care.
Make the reduction of bias and discrimination an institutional priority	Align institutional excellence with the reduction of bias and discrimination.
	Allocate adequate resources to creating, implementing, and evaluating programs.
	Ensure accountability by setting goals and incentivizing success.
Ensure comprehensive curricula to reduce bias and discrimination	Integrate training to reduce bias and discrimination throughout the institution.
	Curricula must provide knowledge and skills necessary to reduce bias and discrimination.
	Provide adequate resources and support for professional development in this space.
Ensure critical diversity in the health professions	Assign responsibility to meet set goals.
	Link improved representation to institutional evaluation.
	Implementation of programs to recruit and support underrepresented groups.
	Structure recruitment practices to prevent bias and discrimination.
Create an institutional culture of respect, inclusion, and equity	Create accountable reporting systems for bias and discrimination.
	Provide institutional rewards celebrating the reduction of bias and discrimination.
	Promote psychological safety throughout the learning environment.

Achieving Our Vision

Guided by our 5 recommendations introduced above, we detail, in the following sections, strategies and interventions to address bias and reduce discrimination in the HPLE.

Create systems to identify and address bias and discrimination

We must know the extent of a problem to effectively address it. Thus, the first recommendation focuses on identifying the presence and effect of bias and discrimination in an institution's local HPLE. This evaluation should stretch into all areas in which learning occurs, including physical (i.e., classrooms, clinics, hospitals), virtual (i.e., websites and associated content) and sociocultural spaces (i.e., mentoring relationships, organizational culture, policies, and practices).[19] Below, we detail specific approaches to achieve this goal.

Identify experiences of bias and discrimination within the health professions community. Experiencing or witnessing bias or discrimination can have devastating effects on the individual.[20–25] Institutions can better understand the prevalence of these experiences through regular surveys of trainees, faculty, and staff. Ideally, these surveys will include details on the source (e.g., peer, supervisor, lecture material), attribution (e.g., race/ethnicity, sexual orientation, gender, etc.), type (e.g., jokes, bullying, harassment), and frequency of these experiences paired with demographic information and social group membership to facilitate comparisons and identify disparities. Data should be regularly reviewed and used to guide interventions and track progress.

Identify health care inequities throughout the medical institution on key metrics. Bias and discrimination contribute to inequity in patient care through direct effects on provider judgment and negative impacts on provider–patient relationships.[2,8,9,26–31] It is important that institutions evaluate patient experience of both overt bias and discrimination as well as more subtle impacts on patient-centered care. For example, surveys can assess whether patients felt that facilities were accessible and whether they felt they were treated with dignity and respect throughout the clinical encounter. Alongside this, institutions should work to identify inequities in health care outcomes between different social groups across key quality metrics and the mechanisms by which they may arise, including through the disparate impact of general policies, practices, and norms of clinical care. To achieve this, detailed and reliable demographic data on social group membership should be collected within our electronic medical records and easily extracted and analyzed to guide improvement.[32] Finally, institutions should critically evaluate whether they are structured to deliver equitable care to all of their patient populations including acceptance of public insurance, equitable access to telehealth, and mechanisms to effectively screen and provide resources to address social determinants of health.[33]

Identify disparities in recruitment and opportunity within the health professions community. Disparities seen between social groups in our broader society are echoed within the health professions community. As such, institutions should also evaluate for the presence of disparities among their trainees, faculty, and staff. Institutions should measure and track recruitment of faculty and trainees underrepresented in the health professions. Also, the language, images, and process of disseminating promotional materials such as job listings and institutional websites should be reviewed for any bias present to identify and remove any potential barriers to the recruitment of underrepresented individuals. These materials should also include clear nondiscrimination policies. Finally, institutions can focus on how they are recruiting individuals. For example, many institutions incorporate messages of public service in materials attempting to recruit diverse individuals based on literature that suggests providers who identify as members of marginalized groups are more likely to serve underserved populations.[34]

However, studies suggest that recruitment processes that focus on this message alone are not effective in recruiting applicants who were not already planning to apply. One study found that messaging focused on personal benefits of the position, including career benefits, were more effective in recruiting new and diverse applicants, especially among women and racial/ethnic minorities.[35] Institutions can consider creating marketing materials that promote public service as well as personal benefits of available positions.

Internal recruitment processes should also be reviewed, including whether there is antibias training for and representation of diverse backgrounds among those who are involved in trainee and faculty selection.[36] Institutions should also review their technical standards for admission and graduation to ensure equitable access of opportunity for students with disabilities and compliance with the Americans with Disabilities Act (ADA). This is particularly important considering that one recent study revealed that almost 20% of U.S. medical schools did not make their technical standards available online for prospective applicants and 61% did not clearly articulate responsibility for providing reasonable accommodations as mandated by the ADA.[37] Selection processes and applicant evaluation should also be reviewed for disparities in recruitment metrics including invitation to interview, interview acceptance, rank position, and matriculation or acceptance to the program. Finally, institutions should also review whether there are programs in place focused on diverse recruitment, such as specific recruitment events targeting different communities and institutional representation at national conferences focused on the recruitment and retention of underrepresented groups in the health professions.

Parity between members of different social groups is another key area to evaluate for bias and discrimination. Among faculty, metrics could include compensation (e.g., benefits, starting salary, bonuses); advancement (e.g., discretionary training opportunities, time to promotion, retention in academics); mentorship; and representation in senior leadership roles, where disparities are particularly stark.[38–40] Attention should also be paid to the type of leadership role held. For example, whether a leadership role is one of governance (e.g., chief of a department, CEO) or limited to nurturing roles (e.g., advising, education) as members of underrepresented groups tend to be granted nurturing roles rather than those that come with governing responsibility.[41] Trainee experience should also be closely monitored and evaluated to ensure equity of opportunity and successful advancement through training. These metrics could include time to graduation, narrative assessments, mentorship, and achievement of clinical competencies or milestones. By reviewing trainee assessment processes and outcomes, institutions can better identify disparities and address them head on.

Evaluate current training across the institution focused on reducing bias in health care. There are educational opportunities throughout the HPLE for trainees, faculty, and staff. Institutions should evaluate current curricular offerings at each of these levels for training focused on reducing bias and discrimination including a review of the content, frequency, quality, and coordination of curricula to identify any gaps and work to close them. It is important to note that evaluation should also include a review of all curricular content to ensure that the discussion of group differences is free of bias, regardless of whether the focus is on health disparities.

Make the reduction of bias and discrimination an institutional priority

The importance of strong top–down leadership in reducing bias and discrimination in the HPLE cannot be overstated. Institutional leaders have the power and resources to make broad sustainable changes and hold people accountable in meeting stated goals.

Align institutional excellence with the reduction of bias and discrimination. One important strategy is to link the reduction of bias and discrimination to institutional goals like academic excellence, high-quality care, or patient engagement. For example, in the late 1980s, the president of the University of Michigan made improving the diversity of the institution a strategic priority by coupling academic excellence to improving social diversity, pursuing them both through a unified effort known as the Michigan Mandate.[42] This coupling placed improved representation at the core of their strategic plan rather than as a separate endeavor. This initiative also included the creation of a taskforce to implement programs and monitor progress made up of the second highest ranking official in each academic unit, ensuring that each school (e.g., medical school, law school, nursing school) would have the same top–down leadership and prioritization.

Allocate adequate resources to creating, implementing, and evaluating programs. The success of any initiative depends on sustainable and adequate funding. There are successful examples in reducing bias and discrimination when enough resources are provided. For example, the Michigan Mandate also allocated 1% of the university's budget annually into an escrow account used only for diversity initiatives. The results speak for themselves: Minority matriculation doubled, minority faculty markedly increased, minority graduation rates increased to be the highest among public universities, promotion and tenure success of minority faculty improved, and more minority faculty were promoted to leadership positions.[42]

Ensure accountability by setting goals and incentivizing success. To track progress, institutions should be held accountable. Making initiatives mandatory, setting time-sensitive goals, and providing transparency around whether goals are being met is one strategy to achieve accountability. The National Health Service (NHS) in the United Kingdom recently adopted a workforce race equality standard (WRES) for all NHS organizations.[43] The WRES requires that all NHS organizations meet and make measurable improvement on 9 diversity metrics, including adequate representation of ethnic minority staff and senior leadership, representation on organizational boards that reflect the demographics of the community, reductions in reports of discrimination, and annual public publication of progress.[44] Importantly, the WRES was made mandatory after review found that prior voluntary initiatives were not leading to positive measurable results.[43] Since implementation in 2015, there has been an increase in workforce representation of minority racial/ethnic groups in general and in very senior positions within the NHS.[45] There has also been a reduction of racial disparities

in disciplinary action and in promotion practices overall.[45]

Another strategy to ensure accountability is to tie success to compensation or grant funding. The Athena Scientific Women's Academic Network (SWAN) in the United Kingdom was established in the early 2000s to promote improved representation and equality for women in science, technology, engineering, and medicine. They created awards recognizing institutional improvements in gender parity. In 2011, the chief medical officer for England restricted the allocation of government funding from the National Institute for Health Research to institutions that had at least a silver award from the Athena SWAN, indicating demonstrable improvement in gender parity within the organization.[46] Since implementation, not only did applications to the Athena SWAN from medical institutions increase by 400%, but evidence suggests that women's career satisfaction, job opportunities, and professional development have also improved at institutions that have received a silver award.[47] This approach has since been expanded to several European academic medical centers and is being evaluated for effectiveness.[48]

Ensure comprehensive curricula to reduce bias and discrimination

Reducing bias and discrimination requires curricula that provide the knowledge and skills needed to identify, prevent, and address these issues in our HPLE. Studies have demonstrated an association between participation in health equity curricula and reduced bias in health professions trainees, although curricular content and approaches have not been uniform.[49–52] For example, in a national sample of medical students, the presence of formal curricula on health equity was associated with a decrease in racial and sexual orientation biases over 4 years of medical school.[51,52] Institutions should provide the content and resources needed to ensure coordinated and effective curricula for all members of the institution. Below, we suggest several approaches that can be used to reach this goal.

Integrate training to reduce bias and discrimination throughout the institution. HPLEs are increasingly team based and multidisciplinary. Additionally, the apprenticeship model of training in the health professions makes role modeling of behaviors, both positive and negative, an important part of learning that can have large impacts. For example, studies have demonstrated an association between overhearing negative remarks about African Americans or lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals made by supervisors and increased racial and LGBTQ bias in medical students.[51,52] Finally, because of changes in medical curricula over time, many students may have more exposure and understanding of concepts of bias and discrimination than their supervisors. Taken together, it is important that curricula addressing these issues be integrated across all health professionals at the institution regardless of training level. Integrated training has also been shown to have successful results. One randomized, controlled trial (RCT) determining the effectiveness of a civility intervention among health professionals found that the coordinated intervention led to increased civility, job satisfaction, respect, and trust in management, as well as a decrease in burnout and work absences in the civility intervention group compared with control, with results still present a year later.[53]

Curricula must provide knowledge and skills necessary to reduce bias and discrimination. Bias and discrimination are forces that affect all aspects of learning and patient care. It is essential that curricula equip health professionals with the knowledge and skills necessary to effectively reduce bias and discrimination in their practice. Curricula should include specific content required to understand bias and discrimination including the science of bias, the negative consequences of these forces on patient care, and a discussion of the historical roots of bias and discrimination within the medical institution and their structural perpetuation in our day-to-day work whenever discussing health disparities between different social groups.[54] By doing so, curricula not only equip students with targeted information needed to understand these issues but also foster an understanding that health differences between social groups are largely the result of societal systems of oppression, like racism and sexism, that assign social advantages or disadvantages to individuals and communities based on social group membership(s), not the result of innate biological differences between social groups.

Curricula must also provide skills necessary to reduce bias and discrimination in the HPLE and in health delivery. Individual awareness of and ability to mitigate personal biases is key to motivating individuals to reduce bias.[55,56] Curricula should strive to capture this motivation to change through providing tools and time to identify and reflect on personal biases. One way to bring awareness to personal biases is through the use of the implicit association test (IAT).[57] While there have been concerns raised about the IAT,[58] a recent meta-analysis has demonstrated that well-designed studies show a correlation between implicit attitudes as measured by the IAT and discriminatory intergroup behavior[59] and that the IAT remains the most used test to measure implicit bias.[60] It can also be a valuable tool in curricula addressing bias.[51] However, we suggest that when using the IAT within curricula, educators should always preface the exercise with the known limitations of the test and provide learners with a way to debrief their results, preferably with a skilled facilitator in small groups, to avoid feelings of shame that can lead to learner disengagement.

Other important skills include the use of individuation, the process of focusing on the individual in front of you rather than their social group membership, and perspective taking. Devine et al demonstrated reductions in implicit racial bias among psychology students that persisted for 8 weeks after a multifaceted training intervention treating bias as a habit and focusing on multiple habit-breaking strategies including individuation and perspective taking.[55] Similar sustained reductions in gender bias were demonstrated in an RCT among health professions faculty using similar training strategies.[61] Perspective taking was also used in a recent RCT in the general population where prejudice against transgender individuals was reduced after a 10-minute conversation that included perspective taking. Importantly, these effects were also sustained when evaluated 3 months later.[62] It is important to note that curricula focused on skills building in this area require teaching approaches that focus on equity and the critical examination of how power

and privilege structure our learning and work environments. Institutions should consider using several of these approaches to inform their curricula, including critical pedagogy and critical race theory[63–66] as well as structural competency.[67]

Finally, patient-centered communication that considers the social context of a patients lived experience can improve patient–provider communication and health care quality, especially among minority groups. Cultural humility is one such approach that evolved from the concept of cultural competency and is described as a lifelong process of striving to equalize power imbalances between providers and patients.[68] It includes a focus on patient-centered interviewing that creates a respectful and trusting relationship in the exam room. Here, the provider does not inhabit a role of "expert," but instead the role of student, understanding that a patient is the expert on their own life. One study evaluated provider cultural competency with a 20-item scale (see List 1) and assessed whether scores were associated with quality of care among HIV patients.[69] They found that providers with middle to high cultural competency scores had patients reporting higher quality of care. Importantly, they also found that providers with low scores on the cultural competency scale had racial disparities present in the quality of care provided to their patients, while those with higher scores did not.[69] While cultural humility grew out of cultural competency, this study reflects the power and importance of effective patient–provider communication in reducing the effects of bias and discrimination in patient care.

Provide adequate resources and support for professional development in this space. Overall, institutions should provide adequate financial support, protected time, and professional development to educators and researchers in this space. Because this work has not traditionally been viewed as an academic pursuit, many individuals working in this space often do so to the detriment of their own professional development and advancement. If we are to reduce bias and discrimination in the HPLE, we must support trainees and faculty of all levels to pursue specialized training in this work and have protected time to develop, evaluate, and implement programing in this space.

Ensure critical diversity in the health professions

Creating a workforce that reflects the broad diversity of current patient populations is arguably the most powerful way to reduce bias and discrimination within the health professions. Increased diversity among trainees and faculty and an inclusive climate decreases bias among health professions trainees.[51,52,70] While there has been marked improvement over time for women and some Asian communities, there has been little improvement in representation of other marginalized groups in the health care workforce.[71–73] While initiatives promoting institutional diversity are common, they are too often decoupled from concrete and purposeful improvements in representation. This has led some to suggest that "diversity" is used by organizations to maintain the status quo and detract from significant changes in representation within the health professions workforce.[74] Meaningful change will require moving from diversity initiatives reflecting good will to measurable improvements in representation.

Institutions should strive to achieve critical diversity, the equal inclusion of people from all backgrounds and a commitment to parity throughout the organization, by examining and confronting issues of discrimination while paying special attention to social groups that have been kept out of the health professions space through exclusionary practices.[75,76] It is also important to understand that many individuals are members of multiple marginalized communities and that living at these intersections of identity can provide unique opportunities for success that must be captured by the institution as well as challenges requiring thoughtful institutional support. Earlier, we reviewed the importance of making initiatives an institutional priority to ensure effectiveness.[42,44,46] In addition to this, there are other important strategies to achieve critical diversity including assigning responsibility to meet set goals, linking improved representation to institutional evaluation, implementing targeted programs to recruit and support providers underrepresented in the health professions, and structuring recruitment practices to prevent bias and discrimination.

Assign responsibility to meet set goals. While it is important to recognize that the improvement of diversity is an overall goal at the institution, meaningful change is more likely if there is a specific person or entity explicitly assigned the responsibility of promoting and fulfilling stated goals.[77] We recommend that institutions assign the responsibility of demonstrating measurable change to managers, whether through a taskforce, leadership position, the establishment of an office dedicated

List 1

Selected Items[a] from the Self-Rated Cultural Competence Instrument for Primary Care Providers[b]

- Family and friends are as important to a patient's health as doctors are.
- Health care providers should not ask patients about personal matters like religion and spirituality. (R)
- The social history rarely contributes much to how I care for my patients. (R)
- Minority patients in the United States as a whole receive lower-quality health care than White patients.
- Being White affords people many privileges in the United States that minorities don't have.
- I am familiar with most of the lay beliefs about disease that my patients have.
- I feel less than competent working with patients from cultural backgrounds different from mine. (R)
- I ask all my patients about complementary and alternative therapies they may be using.
- I always try to find out what patients think is the cause of their illness.
- I try to maintain professional distance from my patients when caring for them. (R)
- I try to involve patients in decisions about their health care as much as I can.

Abbreviation: (R), reverse coded.

[a]Responses for all items used a 6-point scale ranging from strongly disagree to strongly agree.

[b]Saha S, Korthuis PT, Cohn JA, et al. Primary care provider cultural competence and racial disparities in HIV care and outcomes. J Gen Intern Med. 2013;28(5):622–629.

to this work, or a combination of the above. Assigning responsibility can be a combination of including improvement in diversity as a goal tied to general leadership positions as well as having individuals or groups of individuals with an expertise in diversity and inclusion tasked with supporting this work across the organization. In a comprehensive, long-term study comparing different organizational strategies to improve diversity in over 700 private sector firms, programs assigning responsibility in one or several of the above ways had the broadest and strongest effect in improving the diversity of organizations.[77] Notably, this strategy also enhanced the effectiveness of other strategies, including bias reduction training.[77]

Link improved representation to institutional evaluation. Another way to ensure the success of diversity initiatives is to tie improved diversity to institutional evaluation. For example, institutions in the NHS are judged on whether they are making progress toward meeting the WRES, and if they are not, they may not be considered "well led"—a technical designation that can be used to reduce funding in subsequent budget negotiations.[43] This provides a major incentive for ensuring that leadership is committed to working to meet set standards. Another example comes from the Liaison Committee on Medical Education, the accrediting body for U.S. medical schools. In 2009, they introduced 2 accreditation metrics related to diversity: one focused on systematic efforts to recruit and retain diverse medical students to their institutions and the other focused on pathway programs for underrepresented groups.[78] Since the adoption of these metrics, there has been an increase in the matriculation of Black, Hispanic, and female medical students.[78] We recommend that institutions and accreditation bodies throughout the health professions include metrics related to reducing bias and discrimination in general evaluation processes.

Implementation of programs to recruit and support underrepresented groups. The road to a career in the health professions starts long before the application process and is affected by the same structural discrimination we have discussed, putting marginalized groups at a disadvantage at many points before, during, and after training. Institutions should provide resources and programing that focus on addressing the unique challenges and experiences of underrepresented groups on the path to and during their health professions career. This includes targeted pathway programs for underrepresented students in high school and undergraduate training focused on promoting interest and providing exposure to health professions careers, which may otherwise seem out of reach.[79,80]

Recruitment is another space where institutions can work to create an inclusive environment welcoming to underrepresented applicants. Some strategies include clearly stating and demonstrating institutional commitment to diversity in all material provided to prospective applicants, as well as facilitating interpersonal connections with trainees, faculty, and institutional leaders who also emphasize their desire to improve representation of diverse groups at their institution.[81,82] Finally, individuals from underrepresented groups are less likely to have the effective mentoring or network necessary for success in academic spaces.[83] As such, institutions should provide resources for targeted professional development programs aiming to close this gap and support underrepresented providers at their institutions.[83–86]

Structure recruitment and evaluation processes to prevent bias and discrimination. There is a large body of evidence detailing disparities in the recruitment and evaluation of underrepresented trainees in the HPLE, including bias in honors and awards, narrative evaluations, and a lack of modernization and standardization of technical standards across health professions institutions.[87–89] These disparities are thought to arise from disparate impact of general practices and processes that leave underrepresented groups at a disadvantage. By creating thoughtful recruitment and evaluation structures with equity in mind, institutions can help prevent bias and discrimination from impacting recruitment and evaluation in the HPLE.

It is important to note that faculty involved in recruitment and evaluation act as gatekeepers to health professions training and supporting them is an important part of supporting any diversity initiative. As such, faculty should be provided with protected time for their recruitment and evaluation responsibilities. Given the activation of bias under time pressure, this should help to prevent bias from interfering in the evaluation process. Next, faculty should participate in bias reduction training and education that reviews the literature of bias that exists in health professions evaluation and assessment[87,88,90–92] within the health professions and provide guidance on how to approach evaluation to meet institutional diversity goals.[93]

Recruitment and evaluation processes can be structured to reduce bias and discrimination. For example, during recruitment, the use of structured interviews that ask the same questions in the same order to all interviewees can increase fairness and reduce variability.[94] Also, during the evaluation of applicants it is important for programs to determine what qualities make an applicant a "good fit" for the program. Without a shared definition, this designation can lead to strong biases and keep programs from making meaningful changes in representation.[95,96] Programs can work to reduce this by creating clear guidelines for faculty engaged in the selection process of what qualities or work experience the training program or position requires for success.

Once this definition is agreed upon, the tiebreak strategy or the threshold strategy can be used to improve the representation of diverse applicants at the point of acceptance or ranking for a program. The tiebreak strategy was included in the United Kingdom's 2010 Equality Act and suggests that when 2 or more equally qualified candidates apply to an opportunity, selection can be based on a demographic characteristic (such as race/ethnicity or gender identity) because selection of this qualified individual is used to address a shortfall in the organization, namely a lack of diverse representation.[97] The threshold strategy allows managers to make choices that favor candidates from socially disadvantaged groups as long as they have met the threshold needed to succeed in the position being offered; in this case, underrepresented candidates are not being compared with other applicants but, instead, with the required standard qualification for success in an organization.[43]

These strategies help institutions choose applicants based on explicitly

stated procedures that focus on a shared institutional goal to improve representation in the organization. Another important consideration is that the benefits of organizational diversity are activated only after reaching a critical threshold of representation.[98] Thus, lack of adequate representation hinders the ability for the benefits of diversity to manifest on an organizational level. Given the slow progress we have seen despite the prevalence of diversity initiatives throughout the health professions, the use of these explicit strategies may do more to meet the need for transformative change in this area.

Create an institutional culture of respect, inclusion, and equity

While programs like those mentioned above will likely increase representation if applied to HPLEs, organizations must also ensure that the institution is designed to help all members work together and feel valued. This can be done through ensuring a culture of respect and promoting psychological safety among health professionals throughout the institution.

Create accountable reporting systems for bias and discrimination. A culture of respect requires shared core values of transparency, accountability, and mutual respect of all members of the institutional community.[99] One core part of developing a culture of respect is the need to establish clear systems to report events of disrespect, such as discrimination and bias, without fear of retribution or lack of action on the part of the organization.[99] Creating accountable reporting systems that all members of the health professions community believe will lead to actionable change is imperative. Understanding that individuals sharing negative instances of bias and discrimination will not be subject to reprisal help to reduce feelings of hopelessness and fear associated with reporting discrimination. The establishment of these types of reporting systems has been shown to increase awareness of reporting processes and reporting overall as well as early evidence suggesting a decrease of certain types of discrimination.[100]

Provide institutional rewards celebrating the reduction of bias and discrimination. Institutions should create spaces to report and recognize instances where personnel or systems help to reduce or bring awareness to bias and discrimination. The ability to celebrate the ways individuals within institutions are improving climate can serve to encourage this behavior in the organization overall. Institutions can consider the establishment of annual awards for exemplary work focused on reducing bias and discrimination given to individuals, units, or departments who are doing well.

Promote psychological safety throughout the learning environment. In psychologically safe environments, community members feel confident in expressing their ideas and beliefs without fear of negative consequences.[101] Psychological safety is of particular importance in health professions training where learning tasks are team based, complex, and high stakes.[102] While all groups benefit from psychological safety, the benefits are likely even stronger among members of disadvantaged groups. The reduction of bias and discrimination in the HPLE will require constant critique and improvement of the organizations in which we work. By promoting psychological safety, institutions are effectively creating structure to support the reduction of bias and discrimination in their learning environments.

Conclusion

Bias and discrimination are long-standing and pervasive issues in the health professions with historical roots and structural perpetuations. Nevertheless, as we have discussed here, there are a multitude of approaches and strategies that have demonstrated success in reducing bias and discrimination throughout the HPLE and other organizations. By focusing on the 5 recommendations discussed in this paper, institutions can position themselves to create learning environments that adequately prepare the next generation of health professionals to provide high-quality care to all patient populations regardless of background.

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