



Diversity, Equity and Inclusion in Medicine: Why It Matters and How do We Achieve It?

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Diversifying the medical work force is critical to reducing health care disparity and improving patient outcomes. This manuscript offers a comprehensive review of best practices to improve both the recruitment and the retention of underrepresented minorities in training programs and beyond. (J Surg Ed 78:1058–1065. © 2020 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

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COMPETENCIES: Professionalism, Interpersonal and Communication Skills

INTRODUCTION: THE VALUE OF DIVERSITY

The awareness of human diversity is timeless, but the understanding of the value of diversity represents a relatively new concept in the United States. Beginning during the Civil Rights movement of the 1960s, leaders within the military, businesses, local communities, and educational institutions began promoting diversity education.¹ The stimuli at the time were increasing anti-discriminatory legislation and a growing philosophy of social justice which promoted the education of soldiers, employees, students and townspeople about racial disparity as the “right thing to do”. While initially addressing issues limited to racial diversity, over time, diversity educators incorporated other barriers to inclusion including gender, sexual

preference, age, ethnicity, religion, disability, and gender identity into diversity training programs. Diversity education programs continued to evolve and multiply during the 1980s as a corporate means to meet compliance standards; the value of diversity was not yet recognized.²

The true *value* in diversity has been increasingly understood and appreciated as a result of data that matured in the 1990s and 2000s, largely in the corporate world. During this time period, several businesses realized that incorporating diversity and inclusion into both culture and strategy did more than build relationships. Various studies have demonstrated that diverse teams exhibit improved problem-solving ability compared to more homogeneous teams. Companies prioritizing diversity and inclusion enjoy improved employee retention and engagement. More diverse executive boards generate improved profitability and overall business success.^{2,3}

In health care, the value of diversity remains a more nascent, less researched although increasingly accepted and prioritized concept. It seems logical that the value in diversity that has been demonstrated in the business world would extrapolate to health care. These attributes include improved employee engagement and retention, problem solving ability and profitability. But in the health care industry, there are additional, critical measures of value that may vary with the perspective of stakeholders including patients, learners, and researchers.

Perhaps the most critical value of diversity in health care is improving patient outcomes. Current disparities in access and outcomes, based on various barriers to inclusion, are myriad. Language and/or cultural barriers deter some patients of diverse backgrounds from seeking preventative or early care thus compromising long-term outcomes. In order to provide true patient-centered

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care, health care workers should look or pray or speak or love like the patients they serve. Commonality between patients and their providers results in improved communication, decision-making, and adherence to care plans.⁴ The 2010 Institute of Medicine report noted that diverse perspectives improve patient satisfaction as well as problem solving for complex medical problems.⁵ Studies have also demonstrated that underrepresented minority physicians and women are more likely to provide care to underserved communities.⁶ Diversifying the composition of health care providers so that employees reflect the patients they serve, will narrow disparities, improve access and patient outcomes and resultantly, decrease cost to the health system.^{6,7}

While the most significant value of diversity in health care is represented by improvements in population health and the quality of health care delivery,⁷ learners, educators, researchers and employees all benefit from diversity in the healthcare workplace. From a learner perspective, there is evidence that diverse training environments improve learning outcomes including active thinking, empathy, intellectual engagement and motivation.⁸ Students educated in a more diverse environment develop a broadened perspective of race, religion, ethnic, and cultural diversity and are therefore better equipped to work comfortably and effectively in diverse environments.⁹

Increasing the diversity within the healthcare research community may benefit diverse groups who have long been underrepresented in clinical trials. This underrepresentation in trials is believed to be the result of a distrust and a reluctance of minority subjects to participate in clinical trials. Studies have shown, however, that the percentage of minority subjects accepting invitations to participate in research is nearly equivalent to the nonminority rate suggesting providers need to ask more frequently.^{10,11} This underrepresentation in research trials may result in worsened outcomes in an already disadvantaged population. Increasing the diversity of medical researchers may bring necessary focus and energy to enhancing clinical trial enrollment in underrepresented communities.

As health care providers, we have a moral imperative to improve the quality of care we deliver for all patients regardless of their beliefs, their appearance, their language, their sexual orientation, their gender identity, their religion, or their traditions. Diversity in the health care work force is critical to accomplishing this goal. So how do we get there?

RECRUITMENT

Diversity in General Surgery trainees and faculty lags behind the landscape of the United States (U.S.)

population. Numerous studies have demonstrated benefits in innovation, research, and patient outcomes resulting from increased diversity and inclusion in healthcare. At the end of 2019, women outnumbered men enrolled in U.S. Medical schools (50.5%) and the number of both applicants and matriculants who identified as Hispanic, Latino, Spanish, Black, African American, American Indian or Alaska Native, all increased from prior years.¹² The pool of medical school students is increasingly diverse. In the 2019-2020 application year, the percent of women from US medical schools seeking a general surgical residency was 39%.¹³ The number of students who were U.S. citizens, who identified as a non-White race was 49.5%.¹⁴ Although it is difficult to gather accurate data on the number of LGBTQ students in medical schools and training programs today, addressing the needs of members of these communities is equally important. The millennial and postmillennial applicant pools to general surgery residency are more racially and ethnically diverse than we have seen previously. Further, these generations have a heightened social awareness and are more engaged in global activism including issues of gender, sexual orientation, and race.¹⁵ In 2017, in response to leadership "honor walls" - walls that don the portraits of mostly white male leaders in an academic healthcare institution - medical students created their own artistic walls to display the changing face of medical education.¹⁶

With greater understanding that cognitive tests have racial biases, many medical schools have adjusted perspective to incorporate experiential and personal attributes important to professional success into the selection and recruitment process. In addition, medical schools across the country have taken action with the adoption of offices, administration, and education curricula specific to these needs.¹⁷ A paucity of diversity in training program environments has been adversely associated with attrition and poor performance.¹⁸ In order for general surgery residencies to navigate the ever-diversifying group of students and attract the best talent, it is incumbent that general surgery residencies adapt and adopt deliberate recruitment strategies.

In 2007, the Association of American Medical Colleges (AAMC) established an initiative promoting a holistic review process for medical school admissions to enhance diversity using a broad review of applicant experiences, attributes and metrics rather than test scores and other more traditional objective measures. The guidelines target the screening, interview, and selection stages of recruitment with an emphasis on the applicant's strengths in multiple areas, an allowance for the consideration of race and ethnicity, and consideration of the individual's potential to contribute as a future physician rather than an assessment of the

individual as a student by academic metrics alone. The AAMC recognized that most institutions and residencies were already utilizing some degree of holistic recruitment and that this process was most effective when it was aligned with the institutional missions and programs.¹⁹ The AAMC notes that there is no ‘one size fits all’ solution to promote diversity within the selection process for institutions. These guidelines outline ways to establish criteria for selection, support training of the selection and interview team, communication strategies for website and publication, alignment with institutional missions, and the evaluation of effectiveness of the review process. The process also encourages reflective inquiry at the start to establish the mission, to identify opportunities for improvement exist and to track the success of the process. In the context of surgical residency recruitment, these questions include: Are ERAS filters keeping out some URM candidates that possess strengths as important to their physician potential? Is the department messaging and branding free from gender priming and inviting to minorities? Are faculty trained on acknowledging and mitigating implicit bias? Are there gaps in diversity at each stage of the process that would benefit from having benchmarks? Are there ways to deepen the pool?

Over the last 10 years, residency and fellowship programs in multiple areas of medicine have utilized these principles of holistic recruitment to improve diversity and equity. Bell et al. in 2010, described increasing the application, matriculation and overall satisfaction of underrepresented in medicine (UIM) students after 5 years of implementation of a recruitment strategy in the pediatric residency at the University of Washington. Applicants attended a diversity committee meeting held by current residents and faculty.²⁰ At the Ohio State University Cardiology fellowship program, faculty sought out and contacted diverse residents, initiated a mentorship program, and targeted communication to applicants post interview to increase their UIMs from zero in 2007 to matching a UIM applicant every year.²¹ The University of California Los Angeles pediatric residency incorporated an open, honest diversity-themed discussion amongst residents, and faculty during the applicant visit in 2018.²² In the same year, the University of Pennsylvania, Department of Surgery doubled their UIM matriculants after instituting holistic recruiting practices, increasing clerkship opportunities to UIM students with national advertisements, shifting review process away from academic metrics to experience and talent, and blinding interviewers to scores and grades.²³ Giving greater attention to applicant attributes on the whole, demonstrating to applicants that diversity is important to a program, and increasing education and awareness amongst the selection and interview team improves the

recruitment of more diverse applicants. The pipeline is an important issue and unfortunately, the numbers of URiM medical students is not increasing at a rate corresponding to the general population. Future efforts to improve diversity in the healthcare work force must focus on development of a longer pipeline - targeting minority students in high school and elementary schools. Mentorship and scholarship programs may help younger students envision a future for themselves in the health care field.

As general surgery programs train the next generations of surgeons, they must meet the standards of the Accreditation Council for Graduate Medical Education (ACGME) for workforce diversity and responsiveness to diversity in patient populations. Programmatic changes will have greater success with department and institutional leadership support. Adopting holistic strategies will require a selection team to mitigate bias. Interviewers should be selected from different ages, backgrounds, and practice experience and be given implicit bias training. Structured interviewing and situational questioning have been shown to aid in reducing personal bias.²⁴ Addressing recruitment with deliberate strategies and best practices should be incorporated where possible to create an even playing field for applicants and residency training program. Recent literature has proposed frameworks and best practices:^{25,26}

1. Set Diversity as a Priority
 - a. Gain institutional support
 - b. Create consistent messaging on websites and in verbal and published communication
2. Holistic Review of Applicants
 - a. Screen to level the playing field
3. Inclusive Interviewing
 - a. Utilize and train a diverse pool of faculty and residents
 - b. Incorporate structured interviews

RECRUITING FOR DIVERSITY IS NOT ENOUGH, RETENTION IS EQUALLY IMPORTANT: A CASE STUDY

Located in northern Minnesota, the University of Minnesota Medical School, Duluth Campus has had a mission to train physicians to serve rural and Native American communities for over 40 years. There are 130 medical students and we are second in the nation in graduating American Indian and Alaska Native students.²⁷ In 2019, the University of Minnesota Medical School matriculated its largest group of Native American students ever with 12 in the incoming class of 65 students. In addition to

recruiting and supporting American Indian and Alaska Native students, the campus has 5 Native American faculty. Less than 1% of physicians and even fewer scientists are of Native American heritage in the United States. Beyond a mission to serve Native American communities, the campus has increased its students who are underrepresented in medicine to a total of 23% of the class which includes individuals who are African American, Latinx, and other groups such as the LGBTQ community.

In order to serve their students, there are 2 departments with 52 faculty. The breakdown of diversity includes 5 American Indian/Alaska Native people, 2 African American people, 1 Latino person, 3 Asian people and at least 3 members of the LGBTQ community. The goal for diversity is to reflect the people served in medicine and science. However, recruitment is only part of the challenge. You have to create an environment that is supportive and welcoming.

Most of the support for those on at the Duluth Campus who are traditionally underrepresented in medicine and science is focused on the Native American campus members. Traditional American Indian and Alaska Native ceremonies are incorporated into the White Coat and graduation ceremonies. The medical school curriculum includes course work that teaches cultural competency in working with Native American patients. The campus environment features artwork such as a totem pole and signage in the Ojibwe language accessible to all. A Center for American Indian and Minority Health exists to serve as a resource not only for medical students but also faculty and staff who may have questions and need resources.

Leading diverse organizations requires a deep sense of humility. The Harvard Business Review has recently published on why inclusive leaders are good for organizations and how to become one.²⁸ Creating an environment where all team members feel that they are treated respectfully and fairly, are valued and sense that they belong and are confident and inspired takes personal and institutional commitment. The 6 traits that distinguish inclusive leaders include:

1. Visible commitment-authentic, challenges status quo and accepts accountability
2. Humility-Admits mistakes and creates space for participation
3. Awareness of bias-Works to build awareness of personal blind spots
4. Curiosity about others-Has an open mindset and listens without judgment
5. Cultural intelligence-Is attentive and adapts as required

6. Effective collaboration-Empowers others and provides psychological safety.

In departments of surgery, creating a welcoming and safe environment for all members is a work in progress. At the University of Michigan, significant work has been done to eliminate institutional barriers to success for all faculty members, creating a work environment that seeks to serve all members of the department with equity.²⁹ The “Michigan Promise” has 6 elements to support advancing surgeon excellence. They include:

1. Environmental scan to build cultural competence, create awareness of bias, and commit to equity and inclusion
2. Achievement that focuses on mentorship training, academic promotion planning and launch teams
3. Development of leadership skills in all faculty with an eye for diversity in leadership and the use of a faculty exchange program
4. Focus on recruitment with a formal recruitment committee, national partnerships and program engagement
5. Support for innovation with prizes, accelerated business engagement, and supported directed sabbaticals
6. Outreach activities such as global health programming, pipeline programs such as Doctors of Tomorrow, and participation in the Women in Surgery program.

There is commitment from the department and medical school leadership to support these activities as value added and that they are accessible by all faculty members. Residents are also able to receive support from the Office of Faculty and Resident Life. At last, implicit bias training is undertaken by all to help overcome the historical barriers to creating a diverse workforce.

Whether a new team-member is a medical student, a resident or a faculty member, it is important that he/she/they feel included in the institutional community and at a local level from day 1. Sabina Nawaz has emphasized this element of successful support of diverse workforces in a 2019 article in the Harvard Business Review entitled “How to make sure a new hire feels included from Day One”.³⁰ At the core is the concept that as new members join a group, a new group culture must be formed to ensure inclusivity. For example, even when you recruit a “star”, he or she needs individual attention. Do not assume that they will figure things out. New team member equals new team with a new dynamic and lines of communication. It is important to ensure equal opportunity for participation in meetings and decisions with extroverts being actively managed. Newcomers will

need support and amplification especially on sensitive topics. At last, check in with new people and look for ways to integrate them into the community.

Ultimately, leaders need to personally own and commit to diversity. Become a believer in the success that diversity within a team can bring and seek ways to enhance the effort. Become an inclusive leader. Recognize your own limitations and approach culture and race with great humility. Be respectfully curious and educate yourself but remember it can be exhausting for underrepresented individuals to bear the load of teaching you. You will get it wrong sometimes but apologize and work to get it right the next time. Remember-you do not need to do it alone. Take advantage of your institution and major national organizations who have programming designed to help you learn and to support your new members of your department or team who may not look, act, speak or think the way you do!

DEPARTMENTAL CULTURE

Recruitment and retention of diverse residents, faculty, and staff does not occur in a vacuum, and is best accomplished in institutional and departmental environments where Diversity is valued and there is support for women, underrepresented in Medicine (URiM) minorities and LGBTQ individuals. Departmental leadership is essential to establish a culture that embraces diversity. Ideally, the Department can leverage an institutional commitment to diversity and can highlight system-wide initiatives that will be attractive to residency applicants. Many medical schools have created Offices of Diversity and Inclusion (ODI) to coordinate Diversity efforts across systems. The ODI is typically led by a Dean/Officer of Diversity and Inclusion supported by staff able to coordinate programs for students, residents and faculty. These efforts are strengthened by university, hospital, or system wide programs. These efforts may include seminars, workshops and conferences focusing on mentoring. Some institutions have initiated an annual Diversity Awards Ceremony to highlight individuals and programs for special achievements. Surgical faculty participation in these activities should be encouraged by the Chair of the Department of Surgery and the senior surgical faculty. Several medical schools have initiated an annual Diversity Week, during which individual Departments are encouraged to plan Diversity events.

All training programs want to recruit the best applicants, and diverse candidates with excellent credentials will have innumerable invitations for interview and will be highly recruited for residency training. Institutional endeavors should be further reinforced by a department commitment so prospective residency applications

perceive these efforts as genuine and valid. Chairs and program directors who publicly acknowledge the importance of a culture that embraces diversity set the tone for the rest of the department. The presence of a diverse faculty with women and URiM's in leadership positions is an example of departmental commitment to diversity. Another example of departmental support for diversity is active support for surgical societies that provide support to women and URiM's, such as the Association of Women Surgeons, the Society of Asian Academic Surgeons, the Latino Surgical Society, the Association of Out Surgeons and Allies and the Society of Black Academic Surgeons. These meetings are great networking opportunities, and having a robust presence of students, resident and faculty presenting abstracts is another visible endorsement of diverse culture. The first interaction many applicants have to a residency program is the Departmental website. Highlighting the Department's accomplishments and commitment to Diversity on the website can draw applicants to learn more about the Program. An overt statement about an interest in diversity can be useful. The American Surgical Association published a white paper, entitled Ensuring Equity, Diversity, and Inclusion in Academic Surgery, and provides a comprehensive guide from which programs may work.³¹

BEST PRACTICES TO MITIGATE IMPLICIT BIAS

Biases can summarily derail any individual, departmental, or organizational attempt to improve the culture of diversity, equity, and inclusion. Human beings inherently have biases. Research has shown that bias leads to increased efficiency. Stereotyping reflects proper functioning of the brain by identifying patterns to promote generalizations.³² Nevertheless, overgeneralization can lead to discrimination.³³ Implicit or inherent bias refers to attitudes, stereotypes or beliefs that dictate how we treat others with respect to our understanding, actions, and decisions in an unconscious manner.³⁴ This form of bias acts as a roadblock to the implementation of best practices to expand diversity in the surgical workforce. Strategies to mitigate implicit bias, therefore, are critical to building a workplace of diversity, equity and inclusion.

Understanding one's own implicit biases is an important step toward mitigation. Faculty development is necessary. Leaders must develop curricula that incorporate the recognition and management of implicit biases.³⁵ This can be done through following steps:

- Create a safe and nonthreatening learning milieu. This is achieved by having an approachable instructor who provides adequate time and ensures confidentiality.

- Increase knowledge by focusing on topics in neuroscience, psychology, and bias types which will learners better understand the concept.
- Emphasize how bias influences behaviors and patient outcomes as is evidenced in evaluation of disparities, errors, and patient safety.
- Increase self-awareness of existing biases by using validated measures such as Implicit Association Test (IAT) (Harvard), and encouragement of reflection and identity exercises. Some questions for reflection to mitigate bias include:³⁵
 - How would I respond if this person were a different gender/race/ethnicity/etc.?
 - What is the basis for my assumptions about this person?
 - How can I be an ally when stereotypes come up in interactions?
 - What can I do to educate myself more so that I am aware of my own assumptions and bias?
- Improve efforts to overcome bias by rationalizing one's thought process, mindfulness, and self-regulation.
- Enhance awareness of how an individual's biases influence others through our social contacts, perspective taking, as well as empathy. Engaging in perspective taking is a critical component and involves: Perspective of SELF - how the situation is interpreted from your own experience, based on your own thoughts and feelings in a given situation. Perspective of OTHER - how the situation is interpreted from the experience of the other person involved in the situation, based on their thoughts and feelings. And perspective of THIRD PARTY - how the situation is interpreted from someone who is not involved in the situation, but instead is looking from a neutral, outside perspective ("the fly on a wall" approach).³⁶

At last, mentorship is vital to advancing the surgical profession. Mentors should consciously avoid choosing mentees based on duplication themselves. Rather, formal mentor-mentee pair should comprise of differing, if not opposite characteristics in order to maximize meaningful engagement. Coupling such pairs will require conscious through and intentional action.

THE ROLE OF THE WHITE MALE IN DIVERSITY AND INCLUSION

"History will have to record that the greatest tragedy of this period of social transition was not the strident

clamor of the bad people, but the appalling silence of the good people."

Martin Luther King, Jr

Having established that diversity and inclusion are good for organizations and for society, the question remains – "What is the role of the white male in diversity and inclusion?" Philosophically, the answer is simple – "Do what is best for the group/company/organization/people that you represent". However, that is more easily said than done. We are in flux. As we are collectively awakening to the toxin that is systemic racism and to the tragedy of persistent discrimination against other minority groups, we are still often governed by the white male. While the health care community is moving toward a culture of diversity and inclusion, we have not fully transitioned. Many leadership positions are still held by white men. This persistent majority must be part of the solution in order to level the playing field and open doors for underrepresented colleagues. White men must be cognizant of the choices they make- promote the best talent while remaining vigilant in the consideration of unique qualities and diverse traits as they build teams and advance mentees. The white male cannot be excluded from the process of enhancing diversity as no single voice should ever be silenced. But the majority white male leaders must learn to build teams based on differences rather than similarities, the unfamiliar rather than the familiar. Historically, white male leaders may have sponsored and promoted other white males guided by comfort and social familiarity. In clinical medicine it is best to consider a broad list of differential diagnoses before reaching a diagnostic conclusion; this practice should also be applied to the selection of individuals for tasks and roles within institutions and organizations. White privilege may still exist in many arenas. Leaders in surgery are called upon to recognize there are an abundant number of equally qualified candidates, and promoting excellence in a department requires the promotion of diversity and a culture of inclusivity. Leaders at all levels must remain cognizant of our national history and work hard to mitigate systemic racism and the lingering impacts. White men must promote the mission of diversity, equity and inclusion. Until we have reached a state of true equality, movements like #heforshe and white participation in BLM are critical to moving the needle on diversity.

In summary, if we are to make significant strides in the realm of diversity and inclusion, it is imperative that white males take on active roles as allies, sponsors and mentors. Leaders should embrace all 3 roles as they are

complementary and create opportunity to participate in professionally rewarding activities that will ultimately enhance our patient care and educational missions. When people of all colors, genders, identities, races, ethnicities, preferences, and religions work together, we will have the best opportunity to successfully advance the causes of diversity and inclusion.

CONCLUSION

Improving diversity within healthcare is essential to open opportunities to groups currently underrepresented in medicine, reduce health care disparities, improve patient outcomes, expand research protocols, and enhance medical education. The surgical community needs to lead in the efforts to improve the diversity of our medical schools, our academic medical centers, and our hospitals in order to reach common goals of excellence in the tripartite missions of patient care, education, and research. Several practices including wholistic selection of candidates, implementation of structured interviews, commitment and prioritization from local and systemic leadership to culture building, recognition and reduction of implicit biases and the intentional building of diverse teams will continue promote diversity, equity and inclusion in healthcare. The time is now. The work has begun. There is much left to do.

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