AMA Innovations in Medical Education Webinar Series
Focusing on diversity: Promoting mission-aligned medical school admission and residency selection processes

Quinn Capers IV, MD
Tonya Fancher, MD, MPH
Craig Keenan, MD
William A. McDade, MD, PhD
June 15, 2020
Today’s Host

Maya M. Hammoud, MD, MBA
Senior Advisor, Medical Education Innovation
American Medical Association

Professor and Associate Chair for Education
Obstetrics and Gynecology
University of Michigan Medical School

@Maya_Michigan
Objectives

Summarize the current state of medical education and physician workforce diversity in the United States

Examine the importance of promoting diversity across the medical education continuum

Identify and share best practices for expanding diversity at the UME and GME level, including the role of holistic review in selection processes

Discuss the importance of creating a safe and inclusive learning environment in order to enhance recruitment, development, advancement and retention of a diverse workforce
Presenter

William A. McDade, MD, PhD
Chief Diversity and Inclusion Officer
Accreditation Council for Graduate Medical Education (ACGME)
Presenter

Quinn Capers IV, MD
Vice Dean for Faculty Affairs
The Ohio State University College of Medicine
Presenter

Craig Keenan, MD

Director, Internal Medicine Residency Program
University of California, Davis Health
Presenter

Tonya Fancher, MD, MPH

Associate Dean for Workforce Innovation and Community Engagement
University of California, Davis Health
Focusing on diversity: Promoting mission-aligned medical school admission and residency selection processes

William McDade, MD, PhD
Chief Diversity and Inclusion Officer
Accreditation Council for Graduate Medical Education
Why - Examples

Who gets the last ventilator? Facing the coronavirus, a hospital ponders the unthinkable

AMA and other leading physician groups are calling for access to race data in the context of COVID-19 testing, care access, and mortality data to identify health disparities.

It’s No Surprise That COVID-19 Is Exposing Health Disparities

The coronavirus’ impact on African Americans requires us to address an ongoing problem for U.S. communities.


The coronavirus is infecting and killing black Americans at an alarmingly high rate

By Reis Thebault, Andrew Ba Tran and Vanessa Williams  April 7

© 2020 American Medical Association. All rights reserved.
Workforce Diversity matters to the elimination of health disparities

• Educating physicians who are more likely to serve underserved patients and locate in minority communities increases health care access and improves outcomes for those most at risk for health disparities

• ACGME has made recent changes in Common Program Requirements and established an Office of Diversity and Inclusion to promote diversity in GME and more inclusive clinical learning environments

• Adversity in the clinical learning environment as experienced by underrepresented minority learners needs to be recognized and eliminated in order to achieve success in building a diverse workforce
Evidence of Racial and Ethnic Disparities in Healthcare

• 584 pages detailing the extent of racial and ethnic differences in healthcare that are not otherwise attributable to known factors such as access to care

• **Disparities consistently found across a wide range of disease areas and clinical services**

• Disparities are found even when clinical factors, such as stage of disease presentation, co-morbidities, age, and severity of disease are taken into account

• Disparities are found across a range of clinical settings, including public and private hospitals, teaching and non-teaching hospitals, etc.

• Disparities in care are associated with higher mortality among minorities (e.g., Bach et al., 1999; Peterson et al., 1997; Bennett et al., 1995)
IOM study recommendations highlight workforce diversity as a means to eliminate health disparities

- Patient education programs should be implemented to increase patients’ knowledge of how to best access care and participate in treatment decisions

- Integrate cross-cultural education into the training of all current and future health professionals

- Increase in the proportion of underrepresented U.S. racial and ethnic minorities among health professionals
URM students express a greater desire to work in underserved areas after training

Figure 30: Percentage of Medical School Graduates Planning to Practice in an Underserved Area by Race and Ethnicity, 2007

- All Graduates: 21.2% Yes, 33.4% No, 45.4% Undecided
- White: 19.1% Yes, 36.5% No, 44.4% Undecided
- Asian: 15.3% Yes, 36.2% No, 48.5% Undecided
- Black or African American: 45.3% Yes, 10.4% No, 44.3% Undecided
- American Indian and Alaska Native: 50% Yes, 7.1% No, 42.9% Undecided
- Hispanic or Latino: 31.6% Yes, 21.8% No, 46.6% Undecided

AAMC Data Warehouse MSGQ 2007

 Physicians' powerful ally in patient care
Table 1. Unadjusted Association Between Disadvantaged Population and Receipt of Care From White vs Black, Hispanic, and Asian Physicians, Medical Expenditure Panel Survey, 2010

<table>
<thead>
<tr>
<th>Patient Characteristic</th>
<th>No. (%)</th>
<th>Millions of Patients With a White Physician</th>
<th>Millions of Patients With a Black Physician</th>
<th>Unadjusted Odds Ratio (95% CI)(^a)</th>
<th>Millions of Patients With a Hispanic Physician, No. (%)</th>
<th>Unadjusted Odds Ratio (95% CI)(^b)</th>
<th>Millions of Patients With an Asian Physician, No. (%)</th>
<th>Unadjusted Odds Ratio (95% CI)(^c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td></td>
<td>62.2 (100.0)</td>
<td>3.3 (100.0)</td>
<td>5.9 (100.0)</td>
<td>9.8 (100.0)</td>
<td>1 [Reference]</td>
<td>5.2 (53.7)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Non-Hispanic whites</td>
<td></td>
<td>53.2 (86.8)</td>
<td>1.1 (34.7)</td>
<td>2.4 (41.5)</td>
<td>5.2 (53.7)</td>
<td>1 [Reference]</td>
<td>5.40 (4.16-6.99)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Minorities</td>
<td></td>
<td>9.0 (13.2)</td>
<td>2.2 (65.3)</td>
<td>12.30 (8.30-18.00)</td>
<td>3.5 (58.5)</td>
<td>8.20 (5.98-11.23)</td>
<td>4.6 (46.3)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td></td>
<td>4.1 (7.1)</td>
<td>1.9 (63.9)</td>
<td>23.24 (16.28-33.17)</td>
<td>0.5 (16.8)</td>
<td>2.65 (1.81-3.87)</td>
<td>1.0 (16.3)</td>
<td>2.56 (1.90-3.44)</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td>3.1 (5.5)</td>
<td>0.1 (5.3)</td>
<td>0.96 (0.49-1.88)</td>
<td>2.7 (52.6)</td>
<td>19.04 (13.47-26.93)</td>
<td>1.1 (17.7)</td>
<td>3.68 (2.62-5.18)</td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td>0.9 (1.7)</td>
<td>0.1 (5.1)</td>
<td>3.06 (1.15-8.17)</td>
<td>0.3 (9.0)</td>
<td>5.63 (2.67-11.86)</td>
<td>2.3 (31.2)</td>
<td>25.73 (16.92-39.13)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>0.9 (1.7)</td>
<td>0.1 (7.4)</td>
<td>4.60 (1.78-11.94)</td>
<td>0.02 (1.1)</td>
<td>0.61 (0.17-2.15)</td>
<td>0.2 (3.8)</td>
<td>2.25 (1.19-4.25)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High/middle</td>
<td></td>
<td>48.9 (78.5)</td>
<td>2.1 (64.5)</td>
<td>1 [Reference]</td>
<td>3.9 (65.5)</td>
<td>1 [Reference]</td>
<td>7.0 (70.9)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>13.4 (21.5)</td>
<td>1.2 (35.5)</td>
<td>2.03 (1.46-2.75)</td>
<td>2.1 (34.5)</td>
<td>1.92 (1.44-2.55)</td>
<td>2.8 (29.1)</td>
<td>1.49 (1.23-1.81)</td>
</tr>
<tr>
<td>Medicaid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>54.8 (93.2)</td>
<td>2.5 (78.4)</td>
<td>1 [Reference]</td>
<td>4.4 (81.8)</td>
<td>1 [Reference]</td>
<td>7.9 (85.2)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Medicaid</td>
<td></td>
<td>4.0 (6.8)</td>
<td>0.7 (21.6)</td>
<td>3.75 (2.72-5.18)</td>
<td>1.0 (18.2)</td>
<td>3.04 (2.29-4.04)</td>
<td>1.4 (14.8)</td>
<td>2.38 (1.85-3.06)</td>
</tr>
<tr>
<td>Any health insurance</td>
<td></td>
<td>58.8 (94.3)</td>
<td>3.1 (95.2)</td>
<td>1 [Reference]</td>
<td>5.4 (90.1)</td>
<td>1 [Reference]</td>
<td>9.3 (94.0)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Uninsured</td>
<td></td>
<td>3.5 (5.7)</td>
<td>0.1 (4.8)</td>
<td>0.83 (0.49-1.41)</td>
<td>0.6 (9.9)</td>
<td>1.83 (1.30-2.57)</td>
<td>0.6 (6.0)</td>
<td>1.07 (0.78-1.47)</td>
</tr>
<tr>
<td>English home language</td>
<td></td>
<td>60.6 (97.3)</td>
<td>3.2 (96.8)</td>
<td>1 [Reference]</td>
<td>3.9 (66.7)</td>
<td>1 [Reference]</td>
<td>7.9 (80.4)</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Non-English home language</td>
<td></td>
<td>1.7 (2.7)</td>
<td>0.1 (3.2)</td>
<td>1.18 (0.51-2.69)</td>
<td>2.1 (33.4)</td>
<td>17.83 (12.80-24.82)</td>
<td>1.9 (19.6)</td>
<td>8.69 (6.19-12.19)</td>
</tr>
</tbody>
</table>

\(a\) Odds of patients in a demographic group reporting a black physician relative to non-Hispanic white patients reporting a Hispanic physician.

\(b\) Odds of patients in a demographic group reporting a Hispanic physician relative to non-Hispanic white patients reporting a Hispanic physician.

\(c\) Odds of patients in a demographic group reporting an Asian physician relative to non-Hispanic white patients reporting an Asian physician.
Primary care physicians who treat Blacks and Whites

- Cross-sectional analysis of a nationally representative sample of 150,391 visits by black and white Medicare beneficiaries to 87,893 physicians

- Most visits by black patients were with a small group of physicians (80% of visits were accounted for by 22% of physicians) whereas these same physicians (19,492) only saw 22% of white patients; 68,311 physicians saw 78% of white patients, but only 20% of black patients.

- Physicians treating black patients report greater difficulties in obtaining access for their patients to subspecialists, diagnostic imaging, and nonemergency hospital admission.

- A black physician was 39.9 times more likely to see a black patient than was a white physician.
Race-conscious professionalism

- Describes the process black professionals confront when attempting to navigate the competing demands of professionalism, racial obligations, and personal integrity
- Hispanic and black physicians tend to not leave minority communities once they settle in such areas, and when they move, they tend to move to areas similar to those that they are from.


Brown T et al. Does the under- or overrepresentation of minority physicians across geographical areas affect the location decisions of minority physicians? Health Serv Res 2009 44(4):1290-308

Increasing racial/ethnic diversity in the physician workforce

- Isn’t forcing people to work where they don’t want to work
- Isn’t limiting patient access to the best physicians
- Isn’t forcing patients to only see doctors of their own race/ethnicity
- Proximity is an important factor, but not the only factor
- Physicians’ willingness to work in disadvantaged communities and to accept Medicare/Medicaid
- Patient choice plays a role
Does Diversity Matter for Health?

- Black subjects were more likely to talk with a black doctor about their health problems
- Black doctors are more likely to write additional notes about the subjects
- CV disease impact was significant, leading to a 19% reduction in the black-white male gap in cardiovascular mortality
- Diabetes, cholesterol screening and invasive testing were up 20%
- Flu shots were significantly more likely
Does this mean that the only solution to eliminate racial and ethnic health disparities is to increase diversity in the workforce?

- Disparity in physician number is too wide not to educate all
- Patients are free to choose whomever they prefer
- All physicians should be comfortable in taking care of anyone
New Common Program Requirement I.C.

• I.C. The Program, in partnership with its Sponsoring Institution, must engage in practices that focus on mission-driven, ongoing, systematic recruitment and retention of a diverse workforce of residents, fellows (if present), faculty members, senior administrative staff members, and other relevant members of its academic community. (Core)
Who is the target of diversity?

• Focused primarily on racial and ethnic underrepresented minority individuals but is inclusive of diversity across a broad range of categories including gender, orientation, religion, age, ability, national origin or ancestry, among others

• The mission of the ACGME is to improve health care and population health by assessing and advancing the quality of resident physicians' education through accreditation.

• Focus is to provide a workforce that is consistent with accomplishing this mission
The context of diversity

The term "diversity," which came about in connection with the passage of the U.S. Civil Rights Act of 1964, has been reimagined to include an ever-growing list of identities—race, class, gender, and sexual orientation to physical appearance, belief systems, thought styles, neurocognitive status, and even urban or geographic location, among others. This is a welcome expansion of representation, but this altered nature has demanded a different means to design and deploy actions when achieving diversity is the goal. This consequence is particularly visible in the context of addressing equity for specific underrepresented racial and ethnic groups. At work, the U.S. National Academies will become the Runtime for Black Men and Black Women in Science, Engineering, and Medicine to focus on concrete actions that threaten the future of Blacks broadly in science. Alison M. Buminde, a staff member at AAAS, notes that diversity at all levels and career levels will helpfully bring racial equity to researchers in these fields and in doing so, expand the benefits of science, engineering, and medicine to society.

There are unintended consequences of the expanded definition of diversity. With too many groups, success in achieving diversity is increasingly measured in a pie-and-slice manner, where progress is defined through any lens that diverges. Also, with many groups, diversity is often described through the lens of gender, having other groups as secondary, unimportant, or unimportant. And with so many groups, it can become easier for diversity efforts to disregard the historical and present drivers of discrimination that concepts of diversity began with. In other words, the greater context of inclusivity and equity can get lost, making strides to diversity meaningless. The latter point is particularly relevant to Blacks in the United States who have experienced racism, legally enforced segregation and discrimination, and in the context of neurocognitive status, and mental health disparities. Institutionalized racism, past and present, has resulted in the damage, disruption, and disparagement of Black people from all walks of life, and this is true in science, engineering, and medicine.

Embracing the expanding definition of diversity is easy, but using the word with focus for achieving diversity will take great attention.

There may be factors in the overall diversity landscape across the academic landscape of Blacks in science, engineering, and medicine. For example, the number of Black males entering medical school between 2013 and 2016 in the United States was only 60%, a number that has remained at 66% since 2016. This occurs during a historic increase in the number of medical schools in the nation. While this was happening at the training level, the U.S. National Academy of Medicine's recent report noted that in 2016, 66% of Black men in a class that recently increased by over 30% in size. There is a census taking place at all points in the medical educational and career spectrum for this particular group.

In response to this downward trend of Blacks in science and medicine, a number of individuals, including me, comprise a U.S. National Academies workshop on 100 that focused specifically on the growing shortage of Black men in medicine in the United States. The idea became a call for actions that address not only Black men in medicine, but also the trajectories Black women in medicine in engineering and science overall. Embracing the expanding definition of diversity is easy, but using the word with focus as not to weaken the paths for achieving diversity will take great attention. Next week, leaders from academia, industry, government, foundations, and other nonprofit groups will gather at the National Academy for this historic first meeting, the goal will be to begin to understand the barriers, explore opportunities, and develop actionable plans to increase the number of Black pursuing science, engineering, and medicine. The Roundtable will have a laser focus on careers and bias, early to graduate school, funding, public advocacy, membership, and more in ethical, behavioral aspects. We're at the starting point of a roadmap that could potentially lead to the rise in the past for Blacks, and perhaps also help other groups navigate their pursuit of success in science too.

—David T. Lawrence
Total number of active residents 2018-19

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Core Programs</th>
<th>Overall specialty and subspecialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>White non-Hispanic</td>
<td>48,057 (42.2%)</td>
<td>59,350 (42.3%)</td>
</tr>
<tr>
<td>Asian/ Pacific Islander</td>
<td>19,109 (16.8%)</td>
<td>25,029 (17.8%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5,996 (5.3%)</td>
<td>7,395 (5.3%)</td>
</tr>
<tr>
<td>Black Non-Hispanic</td>
<td>5,079 (4.5%)</td>
<td>6,184 (4.4%)</td>
</tr>
<tr>
<td>Native American/Alaska Native</td>
<td>242 (0.2%)</td>
<td>276 (0.2%)</td>
</tr>
<tr>
<td>Other</td>
<td>5,672 (5.0%)</td>
<td>7,594 (5.4%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>29,668 (26.1%)</td>
<td>34,554 (24.6%)</td>
</tr>
</tbody>
</table>

Total 113,823 140382
Table 8. Racial and Ethnic Origin of Resident Physicians in ACGME-Accredited and in Combined Specialty Graduate Medical Education Programs on Duty December 31, 2018, by Specialty

<table>
<thead>
<tr>
<th>Specialty/Subspeciality</th>
<th>No. of Resident Physicians&lt;sup&gt;2&lt;/sup&gt;-&lt;sup&gt;5&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Black</td>
</tr>
<tr>
<td>Family medicine</td>
<td>903</td>
</tr>
<tr>
<td>Clinical informatics</td>
<td>1</td>
</tr>
<tr>
<td>Geriatric medicine</td>
<td>5</td>
</tr>
<tr>
<td>Sports medicine</td>
<td>17</td>
</tr>
<tr>
<td>Hospice and palliative medicine&lt;sup&gt;5&lt;/sup&gt;</td>
<td>10</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>1584</td>
</tr>
<tr>
<td>Adult congenital heart disease</td>
<td>0</td>
</tr>
<tr>
<td>Advanced heart failure and transplant cardiology</td>
<td>3</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>145</td>
</tr>
<tr>
<td>Clinical cardiac electrophysiology</td>
<td>12</td>
</tr>
<tr>
<td>Clinical informatics</td>
<td>2</td>
</tr>
<tr>
<td>Critical care medicine</td>
<td>15</td>
</tr>
<tr>
<td>Endocrinology, diabetes, and metabolism</td>
<td>26</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>76</td>
</tr>
<tr>
<td>Geriatric medicine</td>
<td>23</td>
</tr>
<tr>
<td>Hematology</td>
<td>0</td>
</tr>
<tr>
<td>Hematology and medical oncology</td>
<td>66</td>
</tr>
<tr>
<td>Infectious disease</td>
<td>44</td>
</tr>
<tr>
<td>Interventional cardiology</td>
<td>16</td>
</tr>
<tr>
<td>Medical oncology</td>
<td>1</td>
</tr>
<tr>
<td>Nephrology</td>
<td>51</td>
</tr>
<tr>
<td>Pulmonary disease</td>
<td>3</td>
</tr>
<tr>
<td>Pulmonary disease and critical care medicine</td>
<td>55</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>16</td>
</tr>
<tr>
<td>Transplant hepatology</td>
<td>3</td>
</tr>
</tbody>
</table>
What happens when you increase diversity in an environment unaccustomed to it?

• Matriculation of residents from underrepresented groups requires social adaptation of the learning environment:
  - Mitigating cultural underexposure or indifference
  - Cessation of stereotypical projections
  - Reduction of environmental triggers that feed imposter syndrome
  - Effectively addressing uncivil behavior

• Diversity education, implicit bias training and mandatory demonstration of competence often engender resistance and resentment in the environment. Work is needed in medical education to determine:
  - Most effective training (who and how) and settings (where and why)
  - Persistence of training (when)
In the Minority: Black Physicians in Residency and Their Experiences

- Grounded Theory qualitative analysis of 20 PGY-2 residents at a northeastern medical center
- Discrimination
- Differing expectations
- Social isolation
- Career consequences and coping styles

A daily barrage of microaggressions and bias

Minority residents tasked as race/ethnicity ambassadors

Challenges negotiating professional and personal identity while seen as “other”

Race, Ethnicity, and Medical Student Well-Being in the United States

• Symptoms of distress are prevalent among medical students, but more non-minority students had burnout (39% vs 33%; P<.03)

• Minority students were more likely to report that their race/ethnicity had adversely affected their medical school experience (11% vs 2%; P<.001) and cited racial discrimination, racial prejudice, feelings of isolation, and different cultural expectations as causes

• Minority students reporting such experiences were more likely to have burnout, depressive symptoms, and low mental QOL scores than were minority students without such experiences (all P<.05)

• Adverse experiences related to race appear to relate strongly to burnout among minority students and may be related to the increased attrition rates of minority medical students

Race and the Learning Environment

- Students from racial and ethnic minorities experience more microaggressions that they attribute to their race.
- Studies suggest that the higher prevalence of depression symptoms among this subgroup of students is likely driven by factors within the learning environment rather than individual traits.
- Medical schools need to do more to improve the learning environment for nonwhite students.

---

**A Prognostic Index to Identify the Risk of Developing Depression Symptoms Among U.S. Medical Students Derived From a National, Four-Year Longitudinal Study**

Liselotte N. Dyrbye, MD, MHP, Natalie M. Wintin, MS, Rachel R. Hardeman, PhD, MPH, Mark Yeazel, MD, MPH; Jack Henn, PhD, John F. Howard, PhD, Sara E. Burke, PhD, Brooke Cunningham, MD, PhD; Sean M. Phelps, PhD, MPH; B. Sharafkhaneh, MD, and Michelle van Ryn, PhD, MPH

**Abstract**

**Purpose**
To determine baseline individual and school-related factors associated with increased risk of developing depression symptoms by year four of medical school and to develop a prognostic index that stratifies risk of developing depression symptoms (Depression-P) among medical students.

**Method**
The authors analyzed data from 3,743 students (75% of 4,932) attending 49 U.S. medical schools who completed baseline (2010) and Y4 (2014) surveys. Surveys included validated scales measuring depression, stress, coping, and social support. The authors collected demographics and school characteristics and conducted multivariate analysis to identify baseline factors independently associated with Y4 depression symptoms. They used these factors to create a prognostic index for developing depression. They randomly divided the data into discovery (n = 2,455) and replication (n = 1,288) datasets and calculated c-statistics (c).

**Results**
The authors identified eight independent prognostic factors for experiencing depression symptoms during training within the discovery dataset: age, race, ethnicity, tuition, and baseline depression symptoms, stress, coping behaviors, and social support. The Depression-P stratified four risk groups: Compared with the low-risk group, those in the intermediate, high, and very high-risk groups had an odds ratio of developing depression of, respectively, 1.75, 3.98, and 9.19 (c = 0.71). The replication dataset confirmed the risk groups.

**Conclusions**
Demographics, tuition, and baseline depression symptoms, stress, coping behaviors, and social support are independently associated with risk of developing depression during training among U.S. medical students. By stratifying students into four risk groups, the Depression-P may allow for a tiered primary prevention approach.
Burnout impairs job performance

- Ability to focus wanes
- Engagement with work suffers
- Feelings of apathy and hopelessness
- Increased irritability, emotional exhaustion
- Lack of productivity and poor performance

Relationship Between Burnout and Professional Conduct and Attitudes Among US Medical Students


Objective: To determine the relationship between burnout and professional and burnout among US medical students.

Methods: A total of 26,000 US medical students were surveyed using the Maslach Burnout Inventory (MBI) and the PRIME-MD depression inventory, and the SF-36 quality of life questionnaire.

Results: The survey included 2,692 medical students and found that burnout was common among medical students, with nearly half of the respondents reporting high levels of burnout.

Conclusion: Burnout was associated with lower professional conduct and less favorable attitudes towards medical education.

2015-2016 Pipeline Dismissed by Specialty

- 5.9% of all pediatrics residents are Black
- 5.1% of all surgery residents are Black
2015-2016 Pipeline Grads Dismissed by Specialty

- Anesthesiology: 10.3-fold Black/White
- Family medicine: 3.3-fold Black/White
- Internal medicine: 12.3-fold Black/White
- Obstetrics and gynecology: 4.8-fold Latinx/White
- Pediatrics: 6.7-fold Black/White
- Psychiatry: 4.2-fold Black/White
- Surgery: 6.1-fold Black/White
How common is, abuse and discrimination?

- 7409 residents (99.3% of the eligible residents) from all 262 surgical residency programs surveyed
- 31.9% reported discrimination based gender, 16.6% reported racial discrimination, 30.3% reported verbal or physical abuse (or both), and 10.3% reported sexual harassment.
- 65.1% of the women reported gender discrimination and 19.9% reported sexual harassment.
- Patients and families were most frequent sources of gender discrimination (43.6% of residents) and racial discrimination (47.4%), whereas attending surgeons were the most frequent sources of sexual harassment (27.2%) and abuse (51.9%).

Hu and Ellis et al. NEJM (2019) DOI: 10.1056/NEJMc1903759

• VI.B.6. Programs, in partnership with their Sponsoring Institutions, must provide a professional, equitable, respectful, and civil environment that is free from discrimination, sexual and other forms of harassment, mistreatment, abuse, or coercion of students, residents, faculty, and staff. (Core)
The Cost of Incivility
Thank you

William McDade, MD, PhD
wmcdade@acgme.org
Holistic Review and Implicit Bias Mitigation in Medical School Admissions

Quinn Capers, IV, MD, FACC
Professor of Medicine (Cardiovascular Medicine)
Vice Dean of Faculty Affairs
The Ohio State University College of Medicine

Twitter: @DrQuinnCapers4
Racism is a Pandemic within a Pandemic …

- African Americans are overrepresented amongst pts hospitalized for COVID

- African Americans are overrepresented amongst pts dying from COVID

- African Americans are overrepresented amongst those dying from police brutality

- African Americans are underrepresented in the Medical Profession
The legacy of Racism and Bias in Medical School Admissions Casts a Long Shadow

Holistic Review and Implicit Bias Mitigation Are a Part of the Cure
Holistic Review

Experiences

Attributes

Metrics (MCAT, GPA)
Summary Scores:
Based on the three components of the application, I rate this candidate for:

Attributes:
  Superior  Outstanding  Strong  Acceptable  Concern/Area for Concern
Experiences:
  Superior  Outstanding  Strong  Acceptable  Concern/Area for Concern
Metrics:
  Superior  Outstanding  Strong  Acceptable  Concern/Area for Concern

Rank Value Points (RVP):
Superior = 1, Outstanding = 2, Strong = 3, Acceptable = 4, Concern/Area for Concern = 5

Assign Rank Value Points to your ratings of the three major Holistic Review criteria (Experiences, Attributes, Metrics) to give overall rating below. Your overall rating must be consistent with the sum of your Rank Value Points, unless you have a COMPELLING ARGUMENT.

RVP Sum:
Taking the interview scores into account and my ratings above, I consider this candidate overall to be:

<table>
<thead>
<tr>
<th></th>
<th>Superior</th>
<th>Outstanding</th>
<th>Strong</th>
<th>Acceptable</th>
<th>Concern/Area for Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern</td>
<td>(3-4)</td>
<td>(5-7)</td>
<td>(8-10)</td>
<td>(11-13)</td>
<td>(14-15)</td>
</tr>
</tbody>
</table>
Implicit (Unconscious) Bias in Medical School Admissions

Methods

• In August 2012, all 140 members of The Ohio State University College of Medicine Admissions took the Implicit Association Test (IAT) in 3 areas

  • Black-White IAT
  • Male-Career/Female-Home and Family Stereotype IAT
  • Heterosexual-Homosexual IAT
IAT Male-Career Stereotype

• Test determines unconscious level of “preference” for linkage of male with career and woman with home/family.

• Implies that those with scores higher than the norm are *unconsciously* more “comfortable” with pictures of men in career roles and women in domestic roles and uncomfortable with the reverse
Implicit Gender-Career Stereotype Bias
(Unconscious Association of Man=Career; Woman=Homemaker)

- All Students (men and women): 65%
- All Faculty (men and women): 69%
- All Men (faculty and students): 50%
- All Women (faculty and students): 100%
Implicit Gender Bias
Black-White IAT

• First question (explicit preference):

  • “What best describes you?

    1. I prefer White Americans to Black Americans
    2. I like White Americans and Black Americans equally
    3. I prefer Black Americans to White Americans”

Then the IAT begins to test implicit bias
Implicit Bias Testing: White Preference
OSU COM Admissions Committee 2012

"White Preference" displayed on Implicit Bias Testing

- Explicit-Women: 10%
- Implicit-Women: 52%
- Explicit-Men: 10%
- Implicit-Men: 64%
Implicit Bias in Medical School Admissions

Unconscious Mind: “Black Face =

- Danger
- Violence
- Misery
- Fear
- Non-compliance”
Anonymous comments from committee members*:

• “I don’t believe the results of this “test”.
• “There are lots of older faculty on the committee that I assume would have these old-fashioned opinions”
• “I am insulted by this test. It states that I have a bias against Blacks, women, and homosexuals. I have many colleagues that fit these descriptions that I am very close to. I, myself, am a brown person. Rubbish!”

*OSUCOM Annual Survey, 2012-2013 Cycle
Implicit Racial Bias in Medical School Admissions
Quinn Capers IV, MD, Daniel Clinchet, MD, Leon McDougle, MD, and Anthony G. Greenwald, PhD

Abstract

Problem
Implicit white race preference has been associated with discrimination in the education, criminal justice, and health care systems and could impede the entry of African Americans into the medical profession, where they and other minorities remain underrepresented. Little is known about implicit racial bias in medical school admissions committees.

Approach
To measure implicit racial bias, all 140 members of the Ohio State University College of Medicine (OSUCOM) admissions committee took the black–white implicit association test (IAT) prior to the 2012–2013 cycle. Results were collated by gender and student versus faculty status. To record their impressions of the impact of the IAT on the admissions process, members took a survey at the end of the cycle, which 100 (71%) completed.

Outcomes
All groups (men, women, students, faculty) displayed significant levels of implicit white preference; men ($d = 0.697$) and faculty ($d = 0.820$) had the largest bias measures ($P < .001$). Most survey respondents (67%) thought the IAT might be helpful in reducing bias, 48% were conscious of their individual results when interviewing candidates in the next cycle, and 21% reported knowledge of their IAT results impacted their admissions decisions in the subsequent cycle. The class that matriculated following the IAT exercise was the most diverse in OSUCOM’s history at that time.

Next Steps
Future directions include preceding and following the IAT with more robust reflection and education on unconscious bias. The authors join others in calling for an examination of bias at all levels of academic medicine.
Strategies to Reduce/Neutralize Implicit Bias

1. Common identity formation. Ask interviewee questions about interests and activities that you share in common (Focus on a shared, common identity between YOU and the interviewee)

2. Perspective taking. (Take the perspective of a member of the group against which you have the unconscious bias)

3. “Consider the opposite”. (When data seem to point to one conclusion, briefly look for data supporting the opposite conclusion before making a final decision.)

4. Counter-stereotypical exemplars. (Spend time with or focus on individuals you admire from groups against which you have a bias.)

Implicit Bias Reduction “Cheat Sheet” for Interview Days

Strategies to Reduce/Neutralize Implicit Bias

1. Common identity formation. Ask interviewee questions about interests and activities that you share in common (Focus on a shared, common identity between YOU and the interviewee)

2. Perspective taking. (Take the perspective of a member of the group against which you have the unconscious bias)

3. “Consider the opposite”. (When data seem to point to one conclusion, but look for data supporting the opposite conclusion before making a final decision)

4. Counter-stereotypical exemplars. (Spend time with or focus on individuals you admire from groups against which you have a bias.)

Sources
Anonymous Pledges by Workshop Participants

I have developed implicit bias against blacks from my reading and from seeing large amounts of violence and murder in the ER. I will make an effort to spend time with more black faculty to build positive rapport and reduce implicit bias.

When I see a young mom who has more than one child and is low income I may make judgements about whether or not she should be pregnant. I will use “perspective taking”, think about her experiences and environment and develop empathy.

When I see an obese patient, I will not assume they are not interested in taking care of themselves. I will try to find out more about their background so we can achieve success in helping them feel better.
Anonymous Pledges by Workshop Participants

I’m fine at work, but in my neighborhood I have a harder time with black single males when I am out walking. I am going to try to assume positive intent and say “Hello” and not assume they may accost me. I will think of positive exemplars I know that are black males.

On my next shift, I will most definitely see a pt dressed “like a thug.” I will take the perspective of the patient and try to imagine their life and background.
Activity 2: “Naima”

- **Age**: 19
- **Gender**: Female
- **Race/Ethnicity**: African (Somalian)/African American from Columbus, OH
- **Previous Education**: BS, The Ohio State University
- **Major**: Biology
- **GPA**: BCPM, 3.75, cumulative, 3.75
- **MCAT**: 510 (69th percentile)
- **Exp**: Entered college at age 16 with numerous AP credits, will complete BS in 3 years; volunteered at free clinic 20 hrs/wk for 3 years (patient intake and vital signs); research three summers the same lab (molecular biology), strong PI letter. No leisure time extracurriculars. International experience; born in Somalia, migrated to US at age 10.
- **Letters of Rec**: Strong, not overabundant with praise
Strategies to Reduce/Neutralize Implicit Bias

1. Common identity formation. Ask interviewee questions about interests and activities that you share in common (Focus on a shared, common identity between YOU and the interviewee)

2. Perspective taking. (Take the perspective of a member of the group against which you have the unconscious bias)

3. “Consider the opposite”. (When data seem to point to one conclusion, briefly look for data supporting the opposite conclusion before making a final decision.)

4. Counter-stereotypical exemplars. (Spend time with or focus on individuals you admire from groups against which you have a bias.)

Summary

• Holistic Review must be intentional, disciplined, and mission-focused

• Implicit bias can (unknowingly) impede our ability to make fair and just decisions in admissions

• Implicit bias is remediable!

• Diversifying the physician workforce may be amongst the strongest “anti-racism” strategies that the medical profession can engage in
Holistic Review – One Program’s Experience

Craig R. Keenan, MD
Internal Medicine Residency Program Director
University of California, Davis
• No Disclosures.
Background

• 98 resident internal medicine program
  • Categorical and Primary Care residents
  • Combined Medicine-Psychiatry Program

• Based in urban Sacramento, CA
  • Very diverse community in Central Valley
Step 1 – Define Mission of Program

• Developed Residency Mission Statement
  • Input from faculty leaders and residents

• Emphasized diversity, inclusion, humility to match our community of patients & improve education of all learners

• Used to guide subsequent recruitment strategy
Step 2 -- Screening Applicants

• Screeners –
  • 3 experienced faculty
  • Implicit bias trained
  • Agreed upon “selection” criteria (later slides)
  • Discuss files with questions -- consensus
Step 2 -- Screening Applicants

• No initial digital screen

• Review most applications in their entirety
  • Split the pile 3 ways
  • Takes about 5-7 minutes per file, some are quicker
  • We plan on 2 weeks of lots of hours/block out time well in advance
Step 2 -- Screening Applicants -- CRITERIA

• De-emphasize Board Scores

• Clinical Performance
  • MSPE: Narrative > grade in Core Clerkships highly valued
  • Overall Dean’s “ranking” when available (good within schools)

• Letters of Rec get a quick skim -- not usually very useful
Step 2 -- Screening Applicants -- CRITERIA

• Extracurriculars
  • Leadership positions (with duration)
  • Community service (with duration or volume)
  • Gold Humanism or Service Awards
  • Research

• Distance Traveled
  • Often get from MSPE initial paragraphs OR Personal Statement
  • Value real life experience (in family, in life, in work)
  • Grit
Step 2 -- Screening Applicants -- CRITERIA

- Score as go:
  - Definite Invite
  - Likely Invite
  - Invite if Space
  - No Invite
  - Need to Discuss (consensus)
Step 2 -- Screening Applicants -- CRITERIA

- Decide upon all invites before any sent out
- Avoid over-inviting – always a slot for someone invited
- Assess “diversity” of pool of potential invites and can adjust list
- Lots of people in the Invite if Space pile. Review together and come to consensus.

<table>
<thead>
<tr>
<th>CV</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listed to no extracurricular activities, research, or volunteerism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A little research, volunteerism, or what is listed sounds like busy work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Some extracurricular activities, some research with publications, some volunteerism (e.g. regular in student clinic)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Well-rounded, includes some research with some publications, some volunteerism/community outreach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Organized, well-rounded, research with several pubs, extracurricular or leadership role (e.g. student-run clinic director, humanism award)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Distinguishing Activities: list areas of heavy research, volunteerism, leadership; major awards (AOA, Gold Humanism, etc)

<table>
<thead>
<tr>
<th>Distance Traveled to Residency</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Distance to 100-mile radius</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Distance to 50-mile radius</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Distance to nearest university</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apgar or aspirations content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Bully writer, poor grammar, vagueness, unclear motives for 1M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Average: Jose smiling/hospital, CV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perfect genome, describes candidate well, clear motives for 1M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Excellent content, interested writer, I find</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Letters of Rec.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apgar or aspirations content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Apgar or aspirations content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Apgar or aspirations content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Average: Jose smiling/hospital, CV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Excellent content, interested writer, I find</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dean’s Letter</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &quot;Good to find one, more of 10 and 15 top of 2&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. &quot;Very good &quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. &quot;Very good&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. &quot;Excellent&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. &quot;Outstanding&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© 2020 American Medical Association. All rights reserved.
Step 3 – The Interview Day

• Narrowed Interviewer pool to 15-20, some are super-interviewers
  • Many from diverse backgrounds
• They rate applicant on same CRITERIA as Screeners
Step 3 – The Interview Day

• After interviews -- interviewers meet at lunch
  • 8-10 interviewers on a given day, about 25 days/year
• Residency leaders lead discussion of each applicant
• “Final” ranking score given

• BEST PRACTICE:
  • Re-emphasizes mission/goals of recruitment throughout interview season
  • Calibrates assessment of files/applicants by faculty
  • Efficient -- gets draft rank list done as you go
Step 4 – Ranking

• Estimate cut off line from years past

• Review to ensure applicants meeting our valued criteria are well represented above that line

• Always a lot of similarity in this area of list – so totally reasonable to adjust based on these high-value criteria
Results -- % UIM Residents (all classes)
Success

• Succeeded in getting residents with tremendous diversity of backgrounds, experiences, work in the community

• More residents from LGBTQ community

• Strong sense of community, and lots of grit
Key Component

• Ensure supportive community for when residents arrive

  • Diversity Inclusion Community Engagement (DICE) Committee
  • Resident-led with faculty advisors
  • Advise and assist program
    • Recruitment and orientation
    • Ongoing educational and social events
    • Supportive group of faculty and residents
THANK YOU!
Finding, training and retaining the physicians the community needs the most.

Tonya Fancher MD MPH
Associate Dean, Workforce Innovation and Community Engagement
UC Davis
Disclosures

• American Medical Association’s Change Medical Education
• American Medical Association’s Change Residency Education
• Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $3,791,026 with 0% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. government. For more information, please visit HRSA.gov.
UME pathways to address workforce shortages

Rural Care

Urban Care

San Joaquin Valley

A WORKFORCE IN NEED OF DIVERSITY: CALIFORNIA'S PHYSICIAN POPULATION

© 2020 American Medical Association. All rights reserved.
UME-GME-Employer: Accelerated Competency-Based Education in Primary Care (ACE-PC)

- 3 year MD linked to Family Medicine or Internal Medicine GME
- 85% first-generation, 75% women, 70% URiM
- Older [average 29]
- Minimal debt (scholarships)

https://health.ucdavis.edu/mdprogram/ACE-PC/about.html
Cross-state UME-GME: California Oregon Medical Partnership to Address Disparities in Rural Education and Health (COMPADRE)

• GME collaborative from Sacramento to Portland.

• To reduce health disparities by transforming the physician workforce.

• Graduates will be better prepared, more equitably distributed and more deeply connected to underserved communities.
Pre-UME: Partnering with Community Health Centers (CHCs)

CHC–medical school partnerships can align recruitment, training, and retention of students committed to practicing in their home communities.

• CHC collaborate with the Office if Admissions and Outreach to ensure students represent the diversity of the region.
• Students embedded in GME programs in CHCs.
• Opportunities for recruitment and retention.
Pre-UME: “Reimagine IndianS into MedicinE” (RISE)

Addressing the workforce shortages in tribal communities throughout the Western Region of the Indian Health Service.

Augmenting the number of AIANs who enter the health workforce and serve AIAN people.

https://www.ohsu.edu/school-of-medicine/nnacoe
Thank you

TLFancher@UCDavis.edu

https://health.ucdavis.edu/workforce-diversity/
AMA Innovations in Medical Education Webinar Series
Focusing on diversity: Promoting mission-aligned medical school admission and residency selection processes

Questions
CONTINUING RESOURCES

Please join us to ask questions of our panelists at: https://ama-assn.org/communities/accelerating-change-in-medical-education