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VIEWPOINTS

Fundamental Discussions on Race and Ethnicity for the Cardiology Workforce for the United States of America

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In the article entitled "Diversity, Inclusion, and Equity: Evolution of Race and Ethnicity Considerations for the Cardiology Workforce in the United States of America From 1969 to 2019" by Dr Norman Wang, there are multiple claims made about the role of underrepresented minorities (URMs) in medicine, without attention to actual nuances, such as potential paucity of encouraging role models, lack of supportive economic infrastructure, and the need to overcome institutional racism by our colleagues who belong to these underrepresented groups. This article preferentially focused on parts of US history, and legislature without including the struggles of minorities in the US healthcare system, both as healthcare workers as well as patients.[1]

What he refers to as phase 2 "period of stagnation" for URMs should be an impetus for recruitment and an opportunity for advocacy and advancement of sciences rather than a failure to meet standards. This article does not take into account the negative impact on patients who are minorities of not having physicians who share their background. One third of the departments surveyed within primary care setting had <15% Black faculty.[2] In academic medicine, only 3% of medical faculty are Black, and 4% are Hispanic or Latino.[3] Multiple studies have consistently shown that patients who are racial/ethnic minorities receive suboptimal care by various metrics across various disciplines. There are many examples within the field of cardiology. Black and Latinx patients with heart failure had lower rates of admission to cardiology service with a higher 30-day mortality (3% versus 1%) after discharge. Admission to cardiology service was also related to decreased rates of readmission.[4] The lack of access to equal care is not purely a function of location. Black patients are significantly less likely to receive cardiovascular care in even an intensive care unit setting, which could not be explained by differences in insurance, age groups, or rurality.[5] Although overall counseling for defibrillators is suboptimal during hospitalization for heart failure for all patients, ethnic minorities had significantly less counseling than their White counterparts (24.3% White, 22.6% Black, and 18.6% Hispanic).[6] Even therapy, such as cardiac resynchronization therapy, was offered to Black and Hispanic patients at significantly lower rates (0.69 odds ratio).[7] Black patients are also less likely to receive intravenous thrombolysis, deep vein thrombosis prophylaxis, smoking cessation counseling, antithrombotic therapy at discharge, anticoagulants for atrial fibrillation, and lipid-lowering therapy when using the Get With The Guidelines-Stroke program participant hospitals.[8] Beyond omission of optimal care, there are several historical studies that have been performed on minorities and vulnerable populations in US history without consent and with potential

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for harm.[9] However, with regard to coverage of health care in these areas, there is much to be desired as 65% of Department Family Medicine Chairs surveyed felt that their curricular coverage on disparities of care among minorities was suboptimal.[2]

Although there is merit to knowing that people who do well on standardized testing will likely continue to do well on standardized tests, there is no accounting for applicants' etiquette, endeavors, and the qualities that may enrich the field, such as intellectual curiosity, creativity, and analytic abilities. There are multiple references to protection of "academically qualified applicants" without any consideration that admission metrics of testing scores do not predict success of the physicians in the long-term. When it comes to the use of Medical College Admission Test (MCAT) score for medical school admission, there has been little to prove long-term success of physicians beyond success in further standardized tests. In fact, studies have shown long-term success of applicants with varied MCAT score if proper environment and mentorship are provided.[10] Moreover, the sources that are cited for MCAT score success are based on MCAT preparatory centers, such as Kaplan and Princeton Review, which have a huge financial interest in maintaining the importance of the continued standardized testing. Student Doctor Network is a questionable social media tool as well, which only mentioned 3 variables for medical school acceptance (namely, MCAT score, grade point average, and race). This is a simplistic view that completely dismisses applicants' research, volunteering efforts, unique backgrounds that could enrich the medical community, and quality of the personal statements that all schools require. Usually, the selection and interview process for any stage in medicine is much more complex than rationalizing it based solely on scores.

As far as failure rate for US Medical Licensing Examinations referenced in phase 3 of his article, it should be understood that early socioeconomic struggles can precipitate long-term hurdles, which may be difficult to overcome with mere short-term tutelage during postgraduate training for URMs.[2] A system of education is difficult to instill in a few years of postgraduate training, where multiple educational tools may be lacking for multiple years preceding that. Mentorship from educators as well as peers likely plays a role as well. Even with equivalent testing scores, URM applicants have to overcome institutional racism. When looking at distribution of grades among third-year 1096 medical students, there was also substantially lower gradation for URMs during clerkship after adjusting for factors such as sex, age, and US Medical Licensing Examination scores on Medical Student Performance Evaluation.[11] The attrition rates mentioned in Table 4 use White race as reference, which gives you the entire sense of what is normative to the author. Unfortunately, the sentiment of being "White adjacent" and "model minority" is often prevalent in Asian immigrant cultures and adds to the already strained race relationships in this nation.

Potentially, the failure of recruitment into science, technology, engineering, and mathematics for minorities is far beyond just graduate education and should start with outreach programs at a much younger age. Although the National Heart, Lung, and Blood Institute program referenced in this section supports racial and ethnic minorities in their mentorship and research efforts, nonminority physicians and researchers often receive more extensive mentorship, thus tipping the scales even further. In addition, short-term mentorship may not be adequate to overcome the continuous institutional discrimination, as evidenced by the lower salaries and lower rates of promotion for minorities, and this also extends to Asian Americans.[4,12]

The racial classification continues to be complicated, but there are covert and overt notions of bias within the article. The author states that the "current model for racial and ethnic diversity is practically untenable" with use of the term "demographic tsunami," which further adds to the negative connotation of danger with infusion of minorities into postgraduate education. Despite the ban of segregation in 1968, racial/ethnic fluidity has been limited over the past few decades, leading to further geographic and socioeconomic discrepancies in access to health care and education.[13] Although the constitution is mentioned in the article, many of the delegates at the original Constitutional Convention were slave owners; and although the historical perspective has been presented, it has been lacking in a critical analysis of the interwoven fabric of racial barriers to medical care and education. Morality is not a sine qua non with legality, and our obligations for inclusivity should be based on providing optimal care for a diverse patient base rather than perfunctory fulfillment of diversity mandates.

Although the author argues for racial or ethnic origin being a discriminatory factor in itself since *Bakke* as a basis of acceptance, he is negligent in mentioning that parity is not simply for the sake of the representation of applicants, but rather to serve the larger needs of the population. The author reports that minorities tend to provide care more often in underserved areas and to socioeconomically disadvantaged populations. There is no acknowledgment of the absolute critical necessity of this role. In addition, qualifications in the form of board certification are mentioned. Board certification is a metric that is based on financial application for taking standardized tests. Economic endeavors that are necessary to succeed in medicine include thousands of dollars in MCAT preparatory classes (for those who can afford it), fees for the MCAT, application fees for medical school, traveling for interviews to get into medical school, followed by low wages during years of training with expectation to pay a large sum

for US Medical Licensing Examinations, further postgraduate applications, and traveling for interviews for positions. What is also not mentioned is that hundreds of thousands of dollars in medical school tuition is compounded, which can further hinder those without an affluent background. Applicants from underserved communities may not have the economic resources to continue this process. In addition, with regard to minority physicians being less likely to continue to their specialty of choice, one should factor in discouragement from faculty, lack of mentorship, and overt and covert racism. There is a myriad of publications on disparities facing minorities in health care.[14]

The author speculates that working in underserved areas results from an inability to procure jobs in desirable locations because of lower qualifications. There are many physicians providing care for large sections of society where medicine is otherwise failing to intervene. In fact, access to care as well as quality and intensity of care contribute to lower quality as well as quantity of life for racial/ethnic minorities.[13,15] Although there are references on Black patients getting managed less frequently by board-certified physicians and receiving less high-quality service, there is no mention of alternative solutions to serve their needs.

We appreciate the apology and the retraction from the American Heart Association, and we look forward to reading about how inclusiveness and diversity are highlighted in future endeavors. To provide URMs the tools for success in medical graduate and postgraduate education, there needs to be a concerted effort to provide attention to their specific needs and to be inclusive of their diverse backgrounds. This will further help provide better care for our diverse patient population.

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Supplementary Material

Appendix S1

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