Invited Commentary

# Implicit Bias in Academic Medicine #WhatADoctorLooksLike

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**On October 9, 2016,** Tamika Cross posted to Facebook the description of her experience on Delta flight DL945, flying from Detroit to Houston, when she offered to assist with an in-flight medical emergency. Dr Cross, an African American woman, is a graduate of Meharry Medical College and is currently a postgraduate year (PGY) 4 physician in obstetrics and gynecology, serving as administrative chief resident at the University of Texas in Houston. Her offers of assistance were first met with patronizing dismissal and subsequently, even when she had persuaded the flight crew that she was a physician, were declined in favor of those of a white man, who offered no evidence that he was a physician. The post went viral with the hashtag #WhatADoctorLooksLike and was followed by a chorus of similar experiences related by other dark-skinned women whose claims that they were physicians were discounted on the basis of their skin color, sex, or both.

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While unacceptable anywhere, as a physician I would prefer to think that this kind of demeaning and discounting behavior only occurs outside the profession and that within medicine we celebrate excellence in a sex- and race-blind way. Unfortunately, the evidence does not support this benign assessment. Three articles in this issue of *JAMA Internal Medicine*[1-3] explore sex and racial bias in medicine and challenge us to address equity within our profession as well as beyond it.

Dayal and colleagues[1] report that as emergency medicine trainees progress through residency training increasingly large performance differences are perceived between male and female trainees. In this study,[1] 33 456 direct observations of resident performance of 359 emergency medicine residents in 8 programs were analyzed across 23 subcompetency milestones, deemed by Accreditation Council for Graduate Medical Education to be psychometrically valid. Although the scores for men and women at the PGY1 level were comparable, the scores for PGY3 men were higher than those of PGY3 women across all 23 subcompetencies. If bias against women exists, why was it not seen at the PGY1 level? The authors suggest several explanations, including the expectation that PGY3 residents have assertiveness and a commanding presence in ways that are characteristically male and that, in fact, may be regarded as undesirable in women in the same role.

In another article, Boatright and colleagues[2] explore the influence of race on Alpha Omega Alpha (AΩA) election among applicants to Yale residencies from the class of 2015 in 12 specialties. Overall, black and Asian applicants to Yale residency programs were less likely to be AΩA members than white students. Recognizing the potential for US Medical Licensing Examination (USMLE) scores to work as a confounder, the authors looked at the students who did not score in the top quartile on USMLE; in this group, white race was significantly associated with election to AΩA. Even among students in the top quartile of USMLE scores, Asian students were less likely to be AΩA members (odds ratio, 0.55; 95% CI, 0.41-0.76). Black students who were members of this elite group were also significantly less likely to be selected for AΩA; however, likely because of small numbers, the association did not reach statistical significance (odds ratio, 0.39; 95% CI, 0.14-1.11

The third article[3] in this issue considers the sex of grand rounds speakers in 9 specialties in calendar year 2014. In all but 2 of the 9 specialties, women were underrepresented as grand rounds speakers relative to the composition of the specialty work force and especially compared with the resident pool; this underrepresentation was especially striking when the focus was on extramural lecturers, that is, speakers invited by host institutions for an expenses-paid visit. As the authors point out, grand rounds speakers and specifically those invited from other institutions are held up to trainees as models worthy of emulation. To the extent that those role models do not mirror the sex and racial composition of the trainee pool, we are delivering the implicit but powerful message that these leadership roles and examples of excellence are for someone else. Women, blacks, Asians, and Latinos need not apply.

It is striking how early these stereotypes become entrenched. When my eldest son was 3 or 4 years old, I participated in a program that his daycare encouraged in which a parent would come to the center and talk with the children about our work. I brought my stethoscope and a couple of other show-and-tell items with which the kids could experiment. When I explained that I was a physician, one of the children objected. His argument, "Boys are doctors; girls are nurses." This was 1985 not 1885, but even more striking, the mother of the child who made this comment was a physician.

Medicine is, of course, not alone in struggling with these issues. Much has been written in the past 10 years or so about bias in the hiring of symphony musicians where women are systematically discriminated against.[4] Unfortunately, eliminating implicit bias through techniques such as blind auditions is difficult if not impossible to accomplish in medicine.[5] Women, and presumably underrepresented minorities, will avoid working in environments where they perceive bias and hostility, even if invited in through bias-reduced assessment practices.

What role might medical education play in reducing the deleterious effects of implicit bias in health care? The first step is to identify our own implicit biases. Although this can be uncomfortable, it is the first step in recognizing our own ideas of what a doctor looks like; these biases can powerfully



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influence our ideas about which medical students deserve consideration for AΩA, how our residents are progressing, and who should be invited to give grand rounds. In addition, as these 3 articles[1-3] demonstrate, we must also track how our presumably data-driven, sex- and race-neutral processes are actually performing. If our AΩA selection system is regularly finding a number of students of European background out of proportion to their representation in our schools, how do we understand that and deal with it? In addition, if our medical school teachers and our grand rounds speakers are making our students and residents feel that there is no place for them in the academy, how do we address the discomfort of our students and redress the problems with our selection processes?

The physician workforce has changed significantly during the past 50 years. I have visited scores of medical schools since the mid 1990s. All of them display photographs of graduating classes; likewise, departments of medicine have hallways with picture after picture of the resident cohort of that year. From school to school around the country, until the early 1970s, these pictures show a face of medicine that is overwhelmingly white and male; in the early 1970s, women, by virtue of an intentional focus on inclusiveness (of which I was a beneficiary), began to appear in increasing numbers. Only 20 years later does one begin to see nonwhite medical students in any number. What happened to Tamika Cross on Delta flight DL945 in October was terrible. However, it is not exclusively the fault of the nonmedical world. We must insist that our profession and the processes that our trainees encounter along the way treat them fairly and reflect the diversity of the patients we serve.

ARTICLE INFORMATION

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