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2 in the United States
3
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5

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10 **Discussion Points:**

11 - How can we build a more inclusive learning clinical learning environment for trainees – not just with

12 patients, but on our own clinical teams? #medtwitter #meded

13 - Four medical trainees offer a personal perspective on how to create inclusive clinical teams and avoid

14 implicit bias between team members. #medtwitter #meded

15

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37

1 **ABSTRACT.**

2

3 This piece provides a personal perspective of the bias that affects Asian-American medical students in the

4 United States in the clinical wards. In the evolving landscape of medical education, discussions about race,

5 professionalism, and structural change have come to the forefront, especially with regards to patient

6 interactions. However, less has been discussed about bias that may be perpetuated within a clinical team:

7 between medical students, residents, and faculty physicians. This piece builds on these personal experiences

8 to highlight some steps that can range from the individual to institutional level to address some of these biases,

9 especially as it pertains to Asian-American Medical Students. Overall, this piece shares perspectives that draw

10 strongly on personal experiences in the hopes of creating change for both colleagues and aspiring physician

11 across the medical spectrum.

12

13 **Key Words**: Education, Medical; Bias, Implicit; Americans, Asian

14

1 **THE EXPERIENCE**

2

3 As Asian American and Pacific Islander (AAPI) medical students who were preparing to enter clinical rotations
4 in the United States, we heard warnings from certain faculty mentors not just about difficult exams, demanding
5 shifts, and burnout. Specifically, we were also told to be wary of another stressor our mentors had
6 experienced as AAPIs: being mistaken for each other. For example, we heard stories of an AAPI female
7 medical student mistaken for another AAPI female student on a four-person team. This persistent mix-up led
8 one student to consider dyeing her hair or wearing glasses. At the rotation end, the two students realized they
9 had received evaluations meant for each other because of this continued mix-up, which caused significant
10 stress.

11

12 These are not isolated incidents. We have faced similar events during our own training in different hospitals
13 across different states. Moreover, harmful AAPI biases are not a novel issue. In a 2020 Journal of the
14 American Medical Association (JAMA) Network Open study, AAPI medical residents reported the highest
15 percentage of any race/ethnic subgroup (99%) of being confused for another team member of the same
16 race/ethnicity within a year.[1] As AAPI students, we not only face the challenges of medical school, but also
17 worry about unconscious and conscious biases in the clinic that may impact our evaluations and careers. Bias
18 refers to the "implicit stereotypes and prejudices," often negative, that individuals may hold toward other
19 groups based on factors like race, gender, age, and occupation.[2]

20

21 Currently, there has been increased focus on healthcare system's role in addressing systemic bias and
22 discrimination leading to poorer outcomes and experiences for minority patients.[3] Other studies have
23 assessed patient's bias towards physicians and medical students.[4] Yet, a frequently missing part of the
24 conversation is the bias perpetrated within the medical team. As AAPI students, we have a unique take on this
25 important, prevalent issue.

26

27 For example, one of us was asked by a resident if we spoke Korean as we approached a Korean-speaking
28 patient. Upon realizing that we spoke Chinese, the resident expressed disappointment, saying, "That's such a
29 shame. It'd be so much easier if you spoke Korean." This conversation could have been approached
30 differently: asking the entire team if anyone spoke Korean rather than target the sole AAPI medical student.
31 Incidents like these can also affect team dynamics by leaving a negative impression on a student for
32 something outside of their control – speaking a particular language based on the assumption they may be
33 Korean.

34

35 When considering bias among medical care teams, the issue is complicated for medical students: we are less
36 inclined to speak up and advocate for ourselves given our position in the medicine hierarchy[5]. For AAPI
37 students, this manifests not just as receiving the wrong evaluations, but also being viewed from the lens of
38 racial stereotypes: receiving feedback from faculty on the wards that we are "too quiet," for example. These
39 experiences bring forward an important question: how can we address the bias within our clinical teams
40 towards medical students? From our perspective, education and representation are potential avenues for
41 change.

1

2   To begin, educators can be equipped with resources to understand the complex cultural backgrounds of AAPI

3   students to cultivate a safe environment. Educator bystander intervention workshops build skills for faculty to

4   intervene if a patient or another team member make biased comments that create an uncomfortable

5   environment. Implicit bias trainings could benefit both students and educators alike by alerting both parties to

6   the unconscious societal biases that may influence how one evaluates another person's performance. In fact,

7   bias has been shown to be present both from students toward faculty and from faculty toward students in

8   evaluations[5,6], emphasizing the need to offer interventions toward students as well.

9

10   Another way for microaggressions and discrimination to be recognized and addressed is through AAPI

11   experiences to be incorporated into medical school curriculum.[7] As AAPI medical students, we have sat through

12   many lectures regarding race as a factor for healthcare disparities. From our personal experience, stories and

13   statistics of AAPIs are sometimes not mentioned alongside that of other race/ethnic groups; despite being the

14   fastest-growing racial group in America, AAPIs have funding, structural, and social barriers to research

15   participation.[8] Thus, we encourage these educational trainings and lectures to include our voices and data.

16   Representation also comes in the form of mentorship and structural change to diversify faculty to include AAPI

17   individuals. A 2012 study found that AAPIs represented 3.52% of chairpersons, and 0% of deans in the U.S.[9]

18   Hence, we endorse a hiring toolkit for recruiting, supporting, and retaining faculty and staff from marginalized

19   backgrounds.

20

21   To take an example of these recommendations in practice, at one of our medical schools at the University of

22   Michigan, we have advocated for bystander trainings to be offered to more faculty, staff, and students. We

23   worked to add readings to an optional curriculum for incoming medical students related to the topic of bias

24   toward AAPI students in medicine. Finally, we worked to help establish an AAPI faculty-staff-student support

25   group across our health system to facilitate further conversation on these topics. While there remains much

26   work to do at both Michigan and other institutions, these small steps have already led to progress.

27

28   Addressing general mistreatment of trainees includes addressing the biases medical colleagues perpetrate

29   among each other. As conversations regarding systemic racism increase at bedside and on the wards, it

30   would be a blind spot to not do so. Just as Morbidity and Mortality conferences are seen as critical for

31   ensuring high-quality patient care, so too are discussions about how we can better support and stand up for

32   our hospital colleagues, medical students or not. Through interventions including implicit bias trainings,

33   incorporation of health disparities in the AAPI population into medical school curriculum, and adequate

34   leadership representation, we can create a more positive learning environment for AAPI students (Figure 1).

35   Our hope is that this extends to the bias that trainees of other identities face as well.

36

37   As we look forward in our future career, there is no better way to make us better educators and care providers

38   than having exemplary models. Knowing our names is just one of many steps that mentors and supervisors in

39   clinical settings can take to have medical students feel included. Now is the opportunity to set the tone for

40   addressing bias within clinical teams and positively shape the next generation of physicians.

41

REFERENCES.

1. de Bourmont SS, Burra A, Nouri SS, et al. Resident Physician Experiences With and Responses to Biased Patients. JAMA Netw Open. 2020;3(11):e2021769.

2. FitzGerald, C., Hurst, S. Implicit bias in healthcare professionals: a systematic review. BMC Med Ethics. 2017; 18, 19. https://doi.org/10.1186/s12910-017-0179-8.

3. Hall WJ, Chapman MV, Lee KM, et al. Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review. Am J Public Health. 2015;105(12):e60-e76.

4. Wheeler M, de Bourmont S, Paul-Emile K, et al. Physician and Trainee Experiences With Patient Bias. JAMA Intern Med. 2019;179(12):1678-1685.

5. Kreitzer, RJ and Sweet-Cushman, J. Evaluating Student Evaluations of Teaching: a Review of Measurement and Equity Bias in SETs and Recommendations for Ethical Reform. J Acad Ethics. 2022; 20(1): 73-84.

6. Rojek, A.E., Khanna, R., Yim, J.W.L. et al. Differences in Narrative Language in Evaluations of Medical Students by Gender and Under-represented Minority Status. J Gen Int Med. 2019;34:684-691.

7. Hansen H, Braslow J, Rohrbaugh RM. From Cultural to Structural Competency-Training Psychiatry Residents to Act on Social Determinants of Health and Institutional Racism. JAMA Psychiatry. 2018;75(2):117-118.

8. Budiman A, Ruiz NG. Key facts about Asian Americans, a diverse and growing population. Pew Research Center. Available from: https://www.pewresearch.org/fact-tank/2021/04/29/key-facts-about-asian-americans/; updated April 29, 2021; cited 2022 Aug 1.

9. Yu PT, Parsa PV, Hassanein O, Rogers SO, Chang DC. Minorities struggle to advance in academic medicine: A 12-y review of diversity at the highest levels of America's teaching institutions. J Surg Res. 2013;182(2):212-218.

1   **FIGURES AND TABLES.**

2

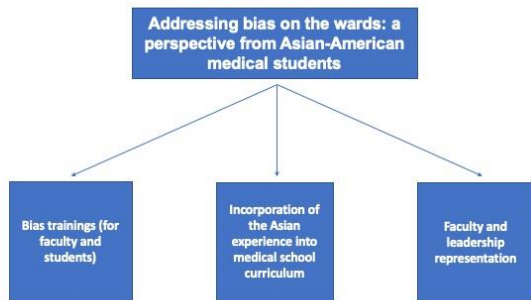3   Figure 1.

4

5   Three Steps to Address Implicit Bias on the Clinical Wards

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