

University of Vermont

ScholarWorks @ UVM

Larner College of Medicine Fourth Year
Advanced Integration Teaching/Scholarly
Projects

Larner College of Medicine

2020

“Uncomfortable, yet incredibly important”: Creating conversations about race among first year medical students

Vincent A. Nocera

The University of Vermont, vnocera@uvm.edu

Lee Rosen

The University of Vermont

Jayne Manigrasso

Oregon Health & Science University

Katie Warther

UCLA Mattel Hospital

Joanna Streck

Massachusetts General Hospital

Follow this and additional works at: <https://scholarworks.uvm.edu/m4sp>



Part of the [Medicine and Health Sciences Commons](#)

Recommended Citation

Nocera, Vincent A.; Rosen, Lee; Manigrasso, Jayne; Warther, Katie; and Streck, Joanna, "“Uncomfortable, yet incredibly important”: Creating conversations about race among first year medical students" (2020). *Larner College of Medicine Fourth Year Advanced Integration Teaching/Scholarly Projects*. 10. <https://scholarworks.uvm.edu/m4sp/10>

This Manuscript is brought to you for free and open access by the Larner College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Larner College of Medicine Fourth Year Advanced Integration Teaching/Scholarly Projects by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.

Title

“Uncomfortable, yet incredibly important”: Creating conversations about race among first year medical students

Authors

Lee Rosen, PhD,¹ Vincent Nocera, BA², Jayne Manigrasso MD,³ Katie Warther, MD,⁴ and Joanna Streck, PhD⁵

¹Assistant Professor, Department of Psychiatry, Larner College of Medicine, University of Vermont

²Medical Student, Larner College of Medicine, University of Vermont

³Resident Physician, Department of Anesthesiology and Perioperative Medicine, Oregon Health and Science University

⁴Resident Physician, Department of Pediatrics, UCLA Mattel Children’s Hospital

⁵Clinical Fellow, Department of Psychiatry, Massachusetts General Hospital

Educational Objectives

By the end of this activity, learners will be able to:

1. Articulate the effects of unconscious racial bias on patient care in a small-group discussion
2. Engage in a small-group conversation about race and stereotyping and racism, and examine their connections to medicine and medical school
3. Practice engaging in conversations about difficult material with colleagues
4. Describe their exposure to stereotyping and racism through the lens of the Implicit Associations Test
5. Plan together to continue to develop as individuals and as a group around issues related to diversity and inclusion

Abstract**Introduction**

This study examined a novel curricular method to help students increase awareness of and reflect on racial bias.

This method of combining students’ Race Implicit Association Test results with longitudinal small-group discussion has not appeared in the literature to date.

Methods

University of Vermont first year medical students are enrolled in a year-long, small-group course designed to create reflective discussion about professionalism and emotionally complex topics in medicine. Prior to the session we investigated, students were instructed to complete the Implicit Association Test (IAT) and related readings. Students then engaged in a semi-structured group discussion facilitated by faculty. After the session, students completed an anonymous evaluation, which included Likertl questions about session objectives and an opportunity for comments, which were subjected to thematic analysis. Two versions of the session were compared.

Results

86% (version 1) and 92% (version 2) of students indicated that this session encouraged them to think about their own unconscious bias, 80% (version 1) and 81% (version 2) indicated that it prompted them to have a discussion that they would not have otherwise had and 64% (version 1) and 51% (version 2) reported that the IAT played a crucial role in their discussion. Results of the thematic analysis (version 1) mirror the Likert results.

Discussion

Use of the IAT combined with facilitated small-group discussion encouraged students to contemplate bias with peers. This method for promoting exploration of bias in medical education sets the stage for further dialogue and more just clinical care.

Introduction

Despite decades of effort, racial disparities in patterns of medical treatment persist. Across a variety of disease and treatment categories including such examples as rates of treatment with cardiovascular procedures¹, treatment of HIV with appropriate medication regimen², time to breast cancer surgery³ and more, African Americans receive different and in many cases less optimal care than their white counterparts, even after controlling for multiple confounders such as socioeconomic status. Although a variety of causal factors may contribute to these differences, the behaviors and attitudes of clinicians are likely an important factor⁴. Even among health care providers who do not endorse explicit racist attitudes, implicit racial bias may affect treatment of patients. Indeed, research indicates that when given otherwise identical fictional written vignettes of patient presentations, merely changing the race of the patient in the vignette affects physicians' estimations of patient cooperativeness⁵.

Differences in unconscious racial bias can be measured using the Implicit Association Test⁶ (IAT), a tool introduced in 1998. Evidence suggests that these unconscious biases may be affected for better and worse by

experiences of medical students during their time in medical school⁷. For example, mere use of the IAT by medical students has been shown to correlate with decreased implicit racial bias⁷.

The IAT has been used extensively in a variety of contexts aimed at addressing various types of bias. Within medical schools, its use has been investigated with regard to medical faculty search committees⁸, as a basis for preparation of LGBTQ inclusive sexual history taking teaching experiences⁹, as part of a unit on health disparities embedded in a family medicine clerkship¹⁰ and to facilitate reflection on the role of bias in general on medical care¹¹. We created a learning module centered around the Race IAT. This module was designed to specifically address the role of implicit racial bias in medicine and facilitate reflection on and discussion of students' implicit racial biases in a small-group discussion format.

Methods

The Professionalism, Communication, and Reflection (PCR) course is a longitudinal curriculum required for all first year medical students at the Larner College of Medicine at the University of Vermont. It consists of weekly 90-minute small group meetings with the same seven medical students and the same faculty physician facilitator. The PCR curriculum addresses a variety of important themes, often centered around communication with peers about difficult topics, learning to attend to patients' narratives, and exploring social and economic forces in medicine. Each week students are assigned readings to complete in advance of the small-group meetings, which are designed to facilitate discussion of that week's topic.

The focus of the session in question was implicit racial bias among physicians and its effects on medical care. We designed and compared two versions of the sessions for students in two different years (the differences in preparatory materials are described below). Directions for accessing the online Race IAT are detailed in Appendix A and AMA citations for all pre-readings are listed in Appendix B (version 1) and Appendix C (version 2). Prior to meeting, students in both versions of the session were asked to complete the following two tasks:

1. Complete the online Race IAT.
2. Read the chapter "Blink in Black and White" from *Blink*, by Malcolm Gladwell.

The purpose of reading this chapter is to provide students the background for taking and understanding the IAT. The Gladwell excerpt describes in some detail the methodology used in the IAT, which relies on the observation that we make faster connections between pairs of ideas that are already related in our mind than we do between ideas that are unfamiliar to us. The test then measures the time required to match concepts like “European American or Bad” and “African American or Good” and compares that with the time it takes to match the concepts “European American or Good” and “African American or Bad”. Gladwell refers to prior research indicating that over 80 percent of test takers have pro-white associations as measured by this test. He goes on to explain that this result does not reflect conscious, intentional, or stated opinions or beliefs, but rather unconscious, automatic, associations. Our conscious beliefs might be completely opposed to our unconscious associations, which are influenced by the social stimuli to which we are exposed, whether or not they conform to our values. That makes the IAT results particularly fertile ground for self-examination and discussion.

Students in version 1 were asked to read the following two pieces in addition to completing items 1 and 2:

3. Read “A Silent Curriculum”, by Katherine Brooks.

Students were also asked to read “A Silent Curriculum”, an essay by Katherine Brooks, who at the time of writing was a medical student. Brooks describes the “silent curriculum” characterized by implicit racial bias that she has so far experienced in medical school. She provides many examples of the ways she has so far been unintentionally instructed to incorporate racial bias into her clinical practice. For example, she has learned to blame miscommunications on the patient, rather than a language barrier. She has learned that patients’ race is often a hint to their medical issues. She has learned that poor immigrant patients have less freedom to turn down medical interventions at birth than white women have. In spite of attempts in the formal curriculum to address the issue of race-related disparities in health care, Brooks articulates concern that the silent curriculum may perpetuate these health care inequities, and she believes that it is pervasive in our healthcare system. She

concludes that physicians need to examine these inequalities and the effect of their own implicit biases in order to challenge them and build truly equitable clinical practices.

In addition to prompting discussion, the Brooks essay serves to alert students to possible examples of healthcare inequities that they might encounter as they go through and beyond medical school. Seeing these examples early in their medical school career may help them recognize inequities when they occur so that they can take measures to counteract them.

4. Read “Presence and Vulnerability in Medical Education”, by Sunny Nakae:

A follow-up comment on the Brooks essay, “Presence and Vulnerability in Medical Education”, by S. Nakae is also assigned. Nakae points out the importance of connecting real world experiences with classroom teaching and learning in order to better prepare students for their future as medical practitioners.

Students in version 2 were asked to complete the following three items in addition to items 1 and 2:

5. View “How Racism Makes Us Sick”, by David Williams

This TED talk by Prof. David Williams of Harvard details the many ways in which racism negatively impacts the health outcomes of African Americans. He describes factors such as implicit racism of medical providers, the effects of geographic segregation and the racial wealth and income gap. He also discusses some of the possible solutions which may help ameliorate these problems. This video helps students better understand the structural issues underlying the health of communities of color in the United States.

6. Read the chapter “The New Jim Crow” from *The New Jim Crow*, by Michelle Alexander

Alexander’s piece serves to introduce students to the concept of institutional racism and the distinction between it and individual bias. Specifically, it explores the role disproportionate mass incarceration of African American men, under the pretext of the War on Drugs, plays in continuing the discriminatory legacy of old Jim Crow segregation laws. Through this reading, students gain an opportunity to understand the societal level mirror

image of implicit bias: how institutional structures and practices, even when not always explicitly racist, serve to discriminate against a racial minority in more subtle yet equally powerful ways.

7. Racism has devastating effects on children's health, pediatricians warn by William Wan

This Washington Post article discusses a policy statement from the American Academy of Pediatrics (AAP) about the negative health effects of racism. It explores the many ways in which discrimination has been documented to cause tangible harm to people's health and explains the AAP's recommendations to health care providers about how to mitigate this harm. We included this piece to focus the larger conversation on implicit bias and institutional racism on the healthcare field more specifically and to facilitate conversations about what students' role might be in responding to this challenge in their careers.

After completing the IAT and the respective assigned pre-work, students met in their small groups and engaged in a semi-structured discussion facilitated by their faculty preceptor. After the discussion session, all students completed an anonymous evaluation (Appendix D), which included Likert survey questions about session objectives and an opportunity for spontaneous, open-ended comments. Comments were subjected to thematic analysis, and a coding scheme was developed to capture themes.

Results

210 first year UVM medical students took part in this learning activity, 120 in version 1 and 90 in version 2. Facilitators were all physician faculty members at the University of Vermont Larner College of Medicine representing a range of departments. Students evaluated the session with an anonymous online Likert scale survey about session objectives which also included free response questions about the session. 100% of the students who participated in the activity (n = 210) completed the survey. (See Table).

86% (version 1) and 92% (version 2) of the respondents indicated that the session encouraged them to think about their own unconscious bias, and 80% (version 1) and 81% (version 2) indicated that it prompted them to have a discussion that they would not have otherwise had with their classmates. 64% (version 1) and 51% (version 2) reported that the IAT played a crucial role in their discussion. 85% (version 1) and 80% (version 2) of

students endorsed the item that stated, “The session prompted me to think more about how my biases may affect my future care of racially diverse patients and colleagues.”

Results of the thematic analysis, which was only done with version 1, elaborate on the Likert results, demonstrating sophisticated student engagement in this activity. Categories of distinct thought units were developed during several read-throughs and labelled as positive or negative. A coding manual was developed describing each category. All responses were then categorized by two independent raters, with high (>95%) inter-rater reliability. 64% of free responses were categorized as positive, while 18% were categorized as neutral and the remainder as negative. Representative examples include the following:

“This was an eye-opening assessment that made me think about implicit racial bias in a very real way.”

“I think it's important to start discussion about bias early on in our medical education.”

“While taking the IAT test can be a bit uncomfortable, I did feel like I learned how unconscious bias could play a role in how I treat others and how others perhaps unconsciously react to my actions.”

“Taking the IAT completely backfired in my PCR group... my group spent the entire time arguing about how the test doesn't reflect an actual result.”

Discussion

Given the continued inequity in health outcomes among different racial groups, and the likelihood that implicit racial bias on the part of healthcare practitioners may in part account for these differences, it is critical that medical educators adopt strategies to address implicit racial bias in medical students. We have developed a curricular module specifically aimed at addressing implicit racial bias in a small group format which uses the Race IAT as its starting point. Based upon post-session Likert scale surveys, the session was well received by medical students, the vast majority of whom agreed it succeeded in prompting discussion of and reflection on the role that implicit racial bias plays in medical care. Although we had expected that the use of the Race IAT would play an outsized role in facilitating discussion, survey results indicate that other elements (including the assigned readings and semi-structured time for discussion among peers) may have also had an important impact. Nonetheless, in summary, a session for medical students to explore racial bias anchored around the Race IAT appears to be a valuable educational innovation.

Possible limitations of our work include the unique educational context in which this session took place. Some of the effects observed may have been due to the longitudinal aspect of our university's PCR groups, which may limit generalizability to schools that are unable to implement a course like PCR. Additionally, some groups struggled with interpreting IAT results, perhaps indicating more intellectual scaffolding would be helpful. Lastly, some students expressed a wish for greater diversity among students in order to enrich the discussion. Future research could explore the impact of demographic diversity in small groups on student rated outcomes in this activity.

References

1. Kressin NR, Petersen LA. Racial Differences in the Use of Invasive Cardiovascular Procedures: Review of the Literature and Prescription for Future Research. *Annals of Internal Medicine*. 2001;135(5):352. doi:10.7326/0003-4819-135-5-200109040-00012
2. Moore RD, Stanton D, Gopalan R, Chaisson RE. Racial Differences in the Use of Drug Therapy for HIV Disease in an Urban Community. *New England Journal of Medicine*. 1994;330(11):763-768. doi:10.1056/nejm199403173301107
3. Eaglehouse YL, Georg MW, Shriver CD, Zhu K. Racial Differences in Time to Breast Cancer Surgery and Overall Survival in the US Military Health System. *JAMA Surgery*. 2019;154(3). doi:10.1001/jamasurg.2018.5113
4. 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. *American Journal of Public Health*. 2015;105(12):2588-2588. doi:10.2105/ajph.2015.302903a
5. Oliver MN, Wells KM, Joy-Gaba JA, Hawkins CB, Nosek BA. Do Physicians Implicit Views of African Americans Affect Clinical Decision Making? *The Journal of the American Board of Family Medicine*. 2014;27(2):177-188. doi:10.3122/jabfm.2014.02.120314
6. Background Information. <https://implicit.harvard.edu/implicit/canada/background/index.jsp>. Accessed April 30, 2020.

7. Ryn MV, Hardeman R, Phelan SM, et al. Medical School Experiences Associated with Change in Implicit Racial Bias Among 3547 Students: A Medical Student CHANGES Study Report. *Journal of General Internal Medicine*. 2015;30(12):1748-1756. Doi:10.1007/s11606-015-3447-7
8. Cahn PS. Recognizing and Reckoning With Unconscious Bias: A Workshop for Health Professions Faculty Search Committees. *MedEdPORTAL*. 2017;13(1). doi:10.15766/mep_2374-8265.10544
9. Mayfield JJ, Ball EM, Tillery KA, et al. Beyond Men, Women, or Both: A Comprehensive, LGBTQ-Inclusive, Implicit-Bias-Aware, Standardized-Patient-Based Sexual History Taking Curriculum. *MedEdPORTAL*. 2017;13(1). doi:10.15766/mep_2374-8265.10634
10. Bernstein R, Ruffalo L, Bower D. A Multielement Community Medicine Curriculum for the Family Medicine Clerkship. *MedEdPORTAL*. 2016;12(1). doi:10.15766/mep_2374-8265.10417
11. Gill A, Thompson B, Teal C, et al. Best Intentions: Using the Implicit Associations Test to Promote Reflection About Personal Bias. *MedEdPORTAL*. 2010;6(1). doi:10.15766/mep_2374-8265.7792