

**Title:** Does Implicit Bias Training Make a Difference? Examining the Effects of Racial Implicit Bias Training on Medical Student Evaluators

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**Purpose:**

Clinical performance evaluations have a significant impact on clerkship grading, class rankings and Alpha Omega Alpha Honors Medical Society (AOA) status which subsequently affect a student's competitiveness for residency.<sup>1</sup> Recent studies have shown racial disparities in medical student evaluations leading us to evaluate our institution.<sup>2</sup> Unfortunately, our analysis confirmed that we, too, have racial differences in the proportion of students receiving honors evaluations during the clinical clerkships.

Clinical evaluations weigh heavily into assigned student grades. We sought to develop interventions to mitigate racial implicit bias within our medical student evaluators by providing implicit bias training (IBT). IBT has become a more common intervention for this issue; however, there is limited data on the effectiveness of this strategy. We will examine the effects of IBT on participants' understanding of implicit bias concepts as well as ways to mitigate the impact of these biases on student clinical evaluations.

**Approach/Methods:**

At the University of Colorado School of Medicine, all required clerkships utilize a grading committee of at least four individuals to assign clinical grades. All clerkship grading committee members were asked to attend a multi-disciplinary 1-hour IBT session specifically designed for the grading committee. Participants completed pre- and 24 hour post-training knowledge-based surveys on topics covered during the IBT. The surveys were completed through Qualtrics survey software. Survey item responses were on Likert scales. Participants entered a deidentified code to later pair the pre-post responses and assess item response differences using the Wilcoxon Signed Rank Sum test. We report pre- and post-training response percentages for ease of interpretation; however, the p-value reported is from the Wilcoxon Signed Rank Sum test using the full item scale.

**Results/Outcomes:**

Fifty-six faculty members participated in the training session; 55 (98.2%) and 36 (64.3%) completed the pre- and immediate post-training surveys. Thirty-one (55.4%) completed both. Prior to the training, nearly two-thirds of the participants (63.6%) had previously attended implicit bias training; however, 94.5% reported only "sometimes" or "rarely" recognizing racial microaggressions when they occur, and only 9.1% reported "completely" understanding the term "stereotype threat". Comparing the pre-test to the post-test revealed an improvement in appreciation of the negative impact of stereotype threat (63.6% extremely/slightly negative vs. 97.3%,  $p<0.01$ ) and racial bias (76.4% extremely/slightly negative vs. 97.2%,  $p<0.01$ ) on underrepresented minority (URM) student performance. The likelihood of intervening when

observing bias in conversation about a student's performance increased after the session (89.2% extremely/somewhat likely vs. 100%,  $p=0.02$ ) with more participants stating they were extremely likely to intervene (34.6% vs. 44.4%). After the training session, all participants reported they were extremely/somewhat likely to intervene when observing a microaggression against a student or team-member, with an increasing number of participants reporting they were extremely likely to intervene (30.9% vs. 50.0%,  $p<0.01$ ). Participants also felt more prepared to mitigate bias after the training (56.4% extremely/moderately prepared vs. 83.3%  $p<0.001$ ). Overall, 75.0% of participants felt our IBT was very or extremely effective.

Only 9 (16%) of participants completed all three surveys. Of the 9 who completed surveys pre-, post- and 6 months after IBT-training, 100% of the ratings for Feeling prepared to mitigate their bias in medical student evaluation, 92% of the ratings for the impact of microaggressions and stereotype threat on a URM student's clinical performance, likelihood of intervening, amount of improvement IBT have on their ability to mitigate racial bias in their evaluations of medical students and 78% of the ratings for the impact racial bias has on a URM student's clinical evaluations and likelihood of intervening when they observe bias in conversations about a student's performance remained the same or increased at 6 months, compared to pre-IBT training.

### **Discussion:**

Six months after IBT training, at least 75% of respondents maintained or increased their ratings on being prepared to mitigate their bias in medical student evaluation, the impact and effect of racial microaggressions and stereotype threats on URM student's clinical performance, the likelihood of intervening when they observe microaggressions/bias in conversations against students or other team members, and the amount of improvement trainings on DEI topics have on their ability to mitigate racial bias in their evaluations of medical students. Our study limitation was the low response rate and therefore not generalizable to the entire group who participated in the IBT training.

### **Significance:**

Medical education is not immune to racial bias. IBT is one method to decrease bias. Our future steps are to assess the long-term effects of IBT by reevaluating our participants 12 months after the training to ensure these effects are long-lasting. We plan to follow the differences in grades between our URM and non-URM students to determine if interventions like this can reduce and ultimately eliminate racial differences in medical student evaluations.

**List of 3 key words:** Implicit bias, medical students, evaluations

### **References:** Limit to 5

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