UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Differences in Language Used to Describe Racial Groups in Emergency Medicine Standardized Letter of Evaluation

Permalink

https://escholarship.org/uc/item/7t19w8gc

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 26(3.1)

ISSN

1936-900X

Authors

Gonzalez, Felisha
Welsh, Laura
Clark, Avery
et al.

Publication Date

2025-06-21

DOI

10.5811/westjem.48722

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at https://creativecommons.org/licenses/by/4.0/

eScholarship.org Powered by the California Digital Library
University of California

22 Peer Power: Near-Peer Led Content Review as a Catalyst for Improved NBME Shelf Exam Scores

Amelia Pousson, Sarah Hill-Yeterian, Haleigh Ferro, Regina Brillman, Sharon Bord

Background: The NBME Advanced Clinical Examination (ACE) in EM is a critical component of assessment in EM education. Scores on this exam are compared with a nationally representative cohort and the material is traditionally more challenging than on other NBME "shelf" clinical exams. Previous literature has shown that both resident-led and structured curricula have improved shelf exam scores in other fields; however, there is scant literature describing interventions to improve EM-ACE scores. This project investigates the impact of a near-peer-run monthly review session on NBME EM-ACE performance. **Objective:** To assess whether a study group intervention improves ACE scores amongst medical students on an EM rotation.

Methods: A pre-and post-intervention study was conducted with 20 cohorts of EM clerkship students from August 2022 to August 2024. The intervention consisted of a single near-peer-led study group session during a 4-week clerkship. Material taught in this session was targeted towards content that was covered less during standard clerkship curriculum. Exam averages, highest, and lowest scores were collected from 10 cohorts before and 10 after the intervention.

Results: In the pre-intervention group (n=134), the mean ACE score was 77 (SD 7, IQR 8.25). In the post-intervention group (n=117), the mean ACE score was 80 (SD 7, IQR 10). There was a statistically significant increase in post-intervention scores (p = 0.014). This difference exceeds the difference expected based on analysis from administration comparing graded component scores from pandemic-induced disruption and conversion to pass-fail grading.

Discussion: The current EM-ACE exam is targeted at final-year medical students and is commensurately challenging. Pre-intervention, our team had noted a trend toward lower scores in students taking the clerkship earlier in their training along with temporal trends associated with pandemic-related disruptions and changing grade schemas. The intervention significantly improved scores in all learners, indicating its potential as an effective educational strategy. More research is needed to assess long-term benefits and broader applicability.

Conclusion: Structured study groups can boost NBME Shelf Exam performance, offering a useful tool for medical educators.

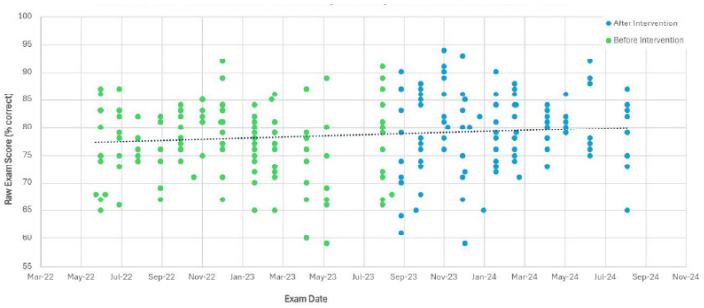

Figure 1. Near-peer led content review as a catalyst for improved Nbme Shelf Exam Scores

23 Differences in Language Used to Describe Racial Groups in Emergency Medicine Standardized Letter of Evaluation

Felisha Gonzalez, Laura Welsh, Avery Clark, Johanna Caicedo Valle, Ijeoma Okafor, Kerrie Nelson, Sula Frausto, Emily Cleveland Manchanda

Introduction: According to program directors in Emergency Medicine, the Standardized Letter of Evaluation (SLOE) is the most important component of the emergency medicine residency application. Understanding possible biases in SLOE language is critical for an equitable review process. Past studies have shown differences in the way medical students are described in narrative evaluations by race and gender. This is the first study to evaluate narrative linguistic differences in applicant SLOEs by race.

Methods: This is a narrative analysis of all US MD and DO SLOEs from applicants to the study institution in the 2022 application cycle. We used Linguistic Inquiry and Word Count (LIWC) to complete two analyses. Analysis One used frequency of words within 19 categories to evaluate differences between underrepresented minorities in medicine (URiM) and non-URiM applicants and within racial subgroups. Analysis two used LIWC to evaluate dichotomous use of 21 key words in these same groups. Linear Mixed Models (LMMs) were performed for each of the outcomes to evaluate for associations between URM/non-URM status or racial subgroup and each outcome and to account for correlation between a residents' SLOEs.

Results: Of the 809 unique applicants, 18.3% identified as URiM, 57.5% identified as White, 17.4% identified as Asian, 10% identified as Latinx, 6.3% identified as Black. The analysis revealed applicants who are Black contained on average 0.537 (SE=0.154, Bonferroni-adjusted p-value=0.010) percentage points more communal words when compared to White applicant SLOEs. URiM applicants had 0.322 percentage points more communal words (SE=0.102, Bonferroni-adjusted p-value=0.030) compared to Non-URiM SLOEs.

Conclusion: Applicants who were URiM or Black were more likely to be described with empathic and communal words than their peers. Our study demonstrates that URM students are more likely to be described with words which have been associated with less hireability and could represent coded language within evaluations that impact advancement

of URiM residents and diversity in our field.

24 Emergencies in Undocumented Persons - A Simulation Case

Adam Roussas, Taylor Wahrenbrock, Michelle Sergel

Introduction: Undocumented persons face unique barriers to accessing health care that are not taught in traditional emergency medicine curricula.

Educational Objectives: Improve residents' understanding of and confidence in addressing the legal and socioeconomic challenges that limit the ability to provide life saving care. Develop a reproducible simulation case for teaching social EM concepts related to the care of undocumented persons.

Curricular Design: We wrote a novel simulation case of a patient presenting to a critical access hospital with an acute myocardial infarction. The patient is undocumented, non-English speaking, and expresses consternation regarding the cost of care and potential for deportation before leaving against medical advice. Ancillary staff are coached to make derogatory remarks and to refuse transfer based on the patient's undocumented status if prompted. Residents were provided 15 minutes to address the medical complaint and also the social and legal challenges impacting care. After the case, a debrief was performed which included discussion regarding the barriers undocumented persons face in accessing care, their rights in the ED, and the nuances of the laws and systems available to assist them.

Impact/Effectiveness: A pre-post survey was given. 35 residents completed the pre-survey, 16 residents participated in the case, and 13 residents completed the post survey. 60% of residents in the pre-survey indicated a poor understanding of the legal and economic resources available to undocumented patients and moderate confidence caring for undocumented persons. After the simulation, over 80% of respondents indicated a better understanding and 100% of residents indicated high confidence in caring for undocumented persons. 100% of residents found the debrief session educationally valuable. We will be implementing this case at community and academic based centers and continue to collect data regarding utility in ED GME.

25 Resident Comfort, Retention, and Clinical Integration following Ultrasound-Guided Nerve Block Procedure Simulation Course

Madison Williams Chen, Blakeley Hudson, Andrew Bloom, Maxwell Thompson, Katherine Griesmer, Samuel Burleson, John Gullett

Introduction: Peripheral nerve blocks form a cornerstone of multimodal pain management; including with joint reductions, complex laceration repairs, and incisions and drainage, while also possibly negating need for procedural sedation. We present the use of a procedure simulation to guide resident physician education and improve retention in commonly indicated ultrasound-guided regional anesthesia (UGRA) techniques, thus increasing use in clinical practice.

Educational Objectives: Understand indications and performance of UGRA. Improve resident physician comfort in use of ultrasound, specifically as it pertains to identifying applicable anatomy in order to perform fascia iliaca compartment blocks (FICB), interscalene blocks, and upper extremity (UE) nerve blocks (radial, ulnar, and median). Increase consideration and clinical integration of UGRA.

Curricular Design: Nineteen emergency medicine resident physicians performed a simulation involving setup and performance of FICB, interscalene blocks, and UE nerve blocks. Surveys were obtained, using a 10-point Likert scale, to compare comfort level before and after participating in the simulation. An additional survey was completed by 8 resident physicians 1 month after simulation to gauge retention of comfort and measure clinical integration.

Impact/Effectiveness: Immediately following the simulation, in comparison to previous comfort level, resident physicians reported increased comfort in performing FICB (3.05 vs. 7.68, $p<0.001$), interscalene blocks (2.11 vs 7.22, $p<0.001$), and UE nerve blocks (2.16 vs 7.63, $p<0.001$). One month following simulation, 8 resident physicians completed an additional post-simulation survey. Of the 8 total respondents, they maintained average comfort level in performing FICB (7.5) and UE nerve blocks (7.63) and reduced average comfort level in performing interscalene blocks (6.5) as it compares to the immediate post-simulation data (Figure 1). In the 1 month post-simulation survey, 3 resident physicians (37.5%) reported they had performed FICB in their clinical practice since completing the simulation. Figure 1: Resident physician comfort in performing UGRA prior to, immediately after, and 1 month after simulation.

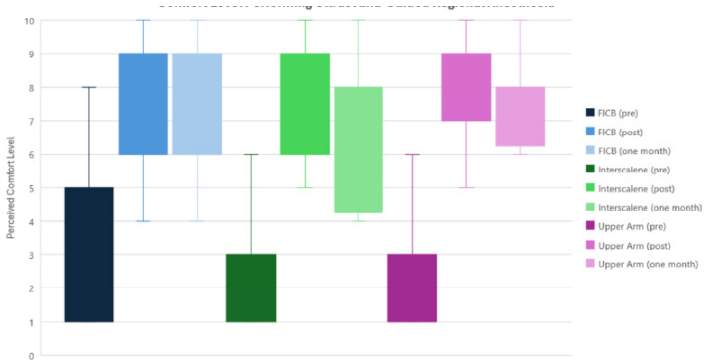

Figure 1. Comfort level performing ultrasound-guided regional anesthesia.