

Poster #4

Research Study

Title: "Color Outside the Lines: An Innovative Approach to Undergraduate Medical Education on Skin of Color"

Brenda Abreu Molnar; Sabrina Martinez; Maria Stevens, MD

Category: Dermatology; Medical Education

Keywords: Dermatology; Skin of Color; Medical Education; Active Learning

Introduction and Objective. Medical school education provides the foundation for future physicians to treat patients' dermatological conditions. A lack of diversity in training contributes to a disparity in physicians' ability to recognize and treat skin problems in patients of darker skin colors, leading to worse outcomes. This study aims to evaluate the impact of an interactive teaching session on skin of color (SOC) in the Clinical Skills course.

Methods. Students in their second year of medical school participated in an active learning session consisting of a 60-minute large group and a 90-minute small group. Students worked independently to complete an online SOC module. This included a virtual encounter where students gather a history, perform a physical exam, generate a differential diagnosis, and develop a treatment plan for a simulated patient. The students then participated in a faculty-led reflection activity where they discussed ideas for addressing the inequities that exist for patients of color. Subsequently, the students separated into small group sessions which included a Jeopardy game and a standardized patient (SP) encounter of a melanoma case. Students were provided with an anonymous pre- and post-survey to assess the impact of the session. Excel and SAS Studio 3.81 were used to analyze the data. Nonparametric analysis with the Mann-Whitney U Test was utilized to compare before and after data.

Results. The average number of students per class who completed the pre- and post-survey was 121 (SD 7.6) and 95 (SD 10.5), respectively. In response to "I feel comfortable speaking with patients of different racial/ethnic backgrounds about their skin, hair, and nails," 57% agreed in the pre-survey, while 83% agreed in the post-survey. In response to "Skin cancers more often present atypically or at an advanced stage in patients with darker skin tones than they do in patients with lighter skin tones," 63% agreed in the pre-survey, while 92% agreed in the post-survey. Differences between survey responses for both questions were statistically significant ($p < 0.0001$). Overall students reported a high level of satisfaction with all components of the session including the didactic lecture, online module, debrief activity, and Jeopardy game; and 83% agreed that the SP resembled a real-life scenario.

Conclusions-Implications. Introduction of a multimodal SOC session into medical education led to increased self-confidence in managing dermatological conditions in patients with darker skin colors and better understanding of diversity in disease presentation. These results highlight the importance of incorporating different "active learning" strategies in the Clinical Skills SOC session, to address unique learning styles and expose students to diverse skin presentations early in their medical education.