

Exploring Diversity in Anatomy: Perspectives of High School Students in Saturday Academy Session

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Introduction

Oakland University William Beaumont (OUWB) School of Medicine has sought to increase access to pre-college biomedical educational programming for high school students.¹ The Saturday Academy Program is one such college readiness initiative hosted by the OUWB's Office of Diversity and Inclusion. It introduces economically and academically disadvantaged high school students to medical education. Although other programs have successfully modeled cadaver-based anatomy education for high school students, we sought to integrate an anatomically diverse perspective for the students.^{2,3} There is evidence suggesting that a more inclusive anatomy curricula would reflect an evolving educational landscape addressing bias within the learning environment.⁴ At the Diversity in Anatomy session of the Saturday Academy Program, medical students showcased human organs with morphological variation to high school students to further support an inclusive approach to pre-college programs.

Aims and Objectives

- Provide an opportunity for high school students to explore anatomic diversity under guidance of medical students
- Assess student impressions of the Saturday Academy Diversity in Anatomy session to best improve the event for future pre-college programming

Approach/Process

- A total of 22 high school student participants from Oakland and Wayne County Schools attended the one-day Saturday Academy Diversity in Anatomy Session without any exclusion criteria or admission fee.
- Four medical students facilitated interactive anatomy stations which included human hearts, lungs, and shoulder and knee joints with morphological variation. Medical students asked guiding questions, such as “How might age and gender influence the size of this heart?”
- Participants were encouraged to engage with the organs and discuss amongst themselves about the differences they observed.
- After the stations concluded, high school students had the opportunity to reflect on their experience. The Office of Diversity and Inclusion developed a brief post-event survey to assess student impressions of the event and interest in pursuing a medical career. (IRB Exemption: IRB-FY2024-270)



Image 1: First year medical student talking to high school students about shoulder and knee joints with morphological variation.



Image 2: Group photo captured at the end of Saturday Academy Diversity in Anatomy Session. (Image Credit: Malli Barremkala)

Survey Results

Based on our evaluation, we expect a relatively high retention rate of students for future Saturday Academy Programs. In the post-event survey, a total of 15 students from grades 9-12 responded to the survey (6 in 9th grade, 3 in each grade 10th-12th). All 15 students expressed interest in attending medical school. Regarding recommending the session, 5 students gave a rating of 5, 4 students gave a rating of 4, and 6 students did not respond. In terms of event satisfaction, 13 students rated it as “excellent”, with 2 students not responding.

Discussion

- Regarding the survey, it was difficult to ask participants targeted questions since it was created and administered prior to our research. Moving forward, we aim to refine the survey to gather valuable insights and keep the survey short. We plan on gathering feedback on early exposure to cadavers in high school, impressions of anatomical diversity, and the usefulness of career-related questions for medical students.
- Our analysis served to contribute to further improvement and development of the Saturday Academy Program. We found several programs exposing high school students to anatomy, but none with a focus on anatomical diversity.^{2,3,5} We hope to provide examples for other programs in integrating a diverse approach to pre-college programs.

References

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