

An Analysis of Family Medicine Residents Attitudes Towards High School STEM Curriculum and STEM Student Interest in Medicine



Jillian Weinfeld, MD¹, James Ding, MD¹, Martha Smith, DO¹, Tarun Kakumanu, DO¹, Reema Iqbal, MD¹, Joshua Wheatley, MD¹, Saju Samuel, MD¹, Paul Weissberg, MD¹, Iqtidar Mansoor, MD¹, Christopher Bader, DO¹, Kenneth Kronhaus, MD¹, Kelly Ussery-Kronhaus, MD¹

¹Ocean University Medical Center



INTRODUCTION

- A collaboration has been established between the OUMC Family Medicine Residents and the Brick HS ninth grade STEM students.
- Residents have been paired with 8-10 groups of students to develop a research question and design a tangible research study pertaining to their high school environment.

OBJECTIVES

- To assess the attitudes of ninth grade STEM students towards pursuing a career in the healthcare profession.
- To assess the readiness of family medicine residents to mentor high school students to develop a research project.

LIMITATIONS

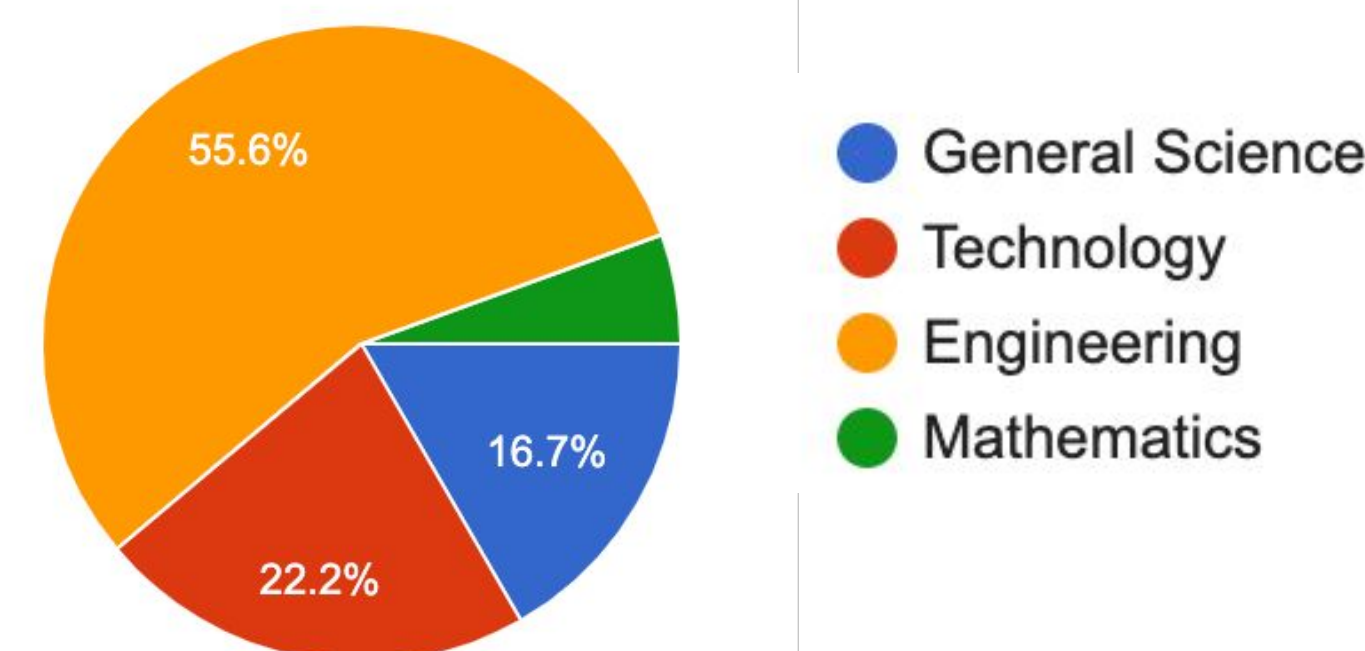
- This sample only included ninth grade STEM students
- 16/26 STEM students enrolled are male which is not indicative of the general gender proportion in our population.
- 8/26 of STEM students did not complete the surveys.

METHODOLOGY

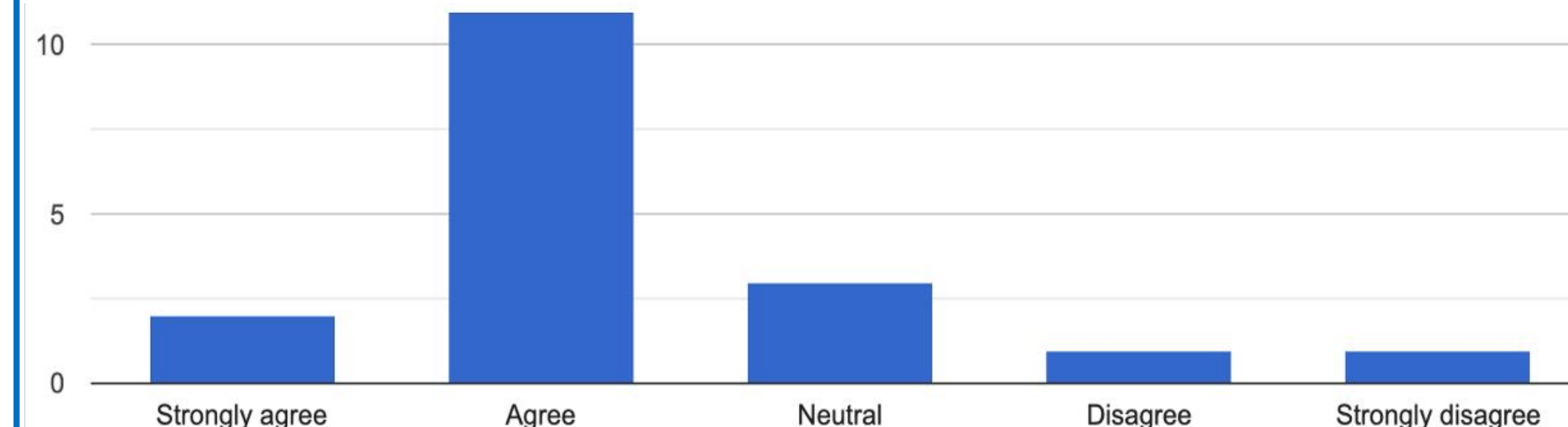
- Design:** Quality Improvement Project with the Just Do It method; Zoom and in person learning sessions; surveys via Google Forms
- Analysis:** Attitudes were assessed on 5 Point Likert scale and percent response rate by item
- Main outcome measure:** Percentage of STEM students interested in pursuing a healthcare profession; *Secondary Outcome:* Resident interest in medical education

RESULTS

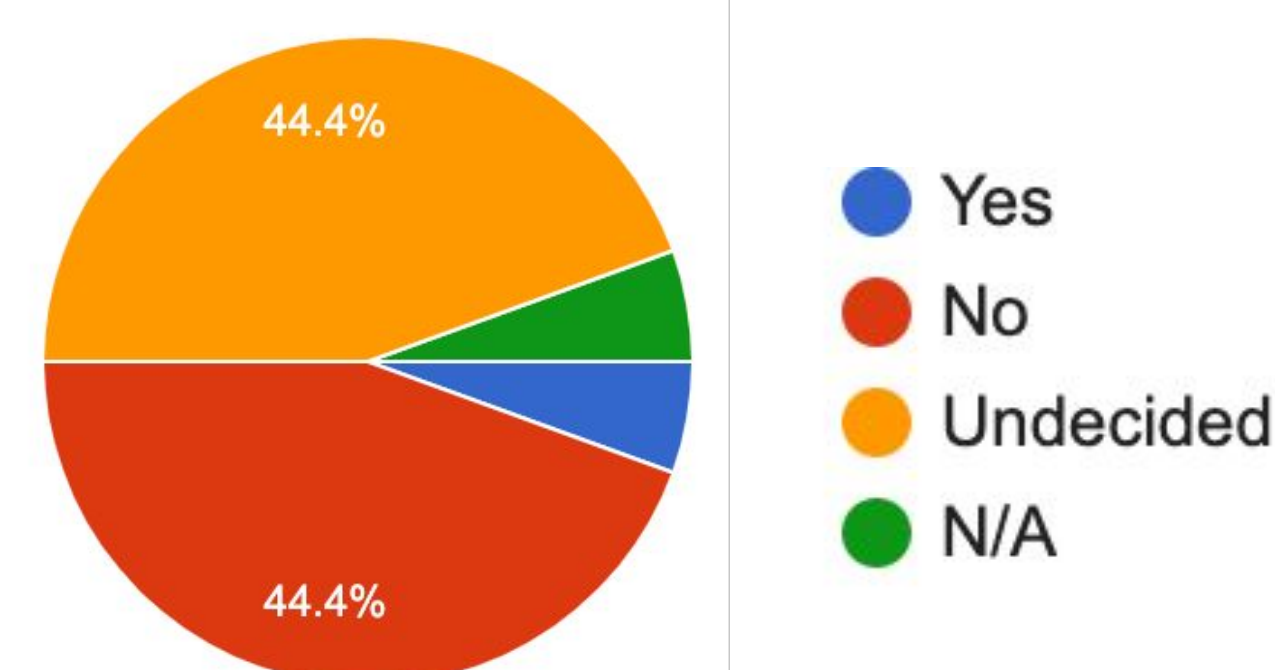
Student Initial Interest Within STEM Curriculum



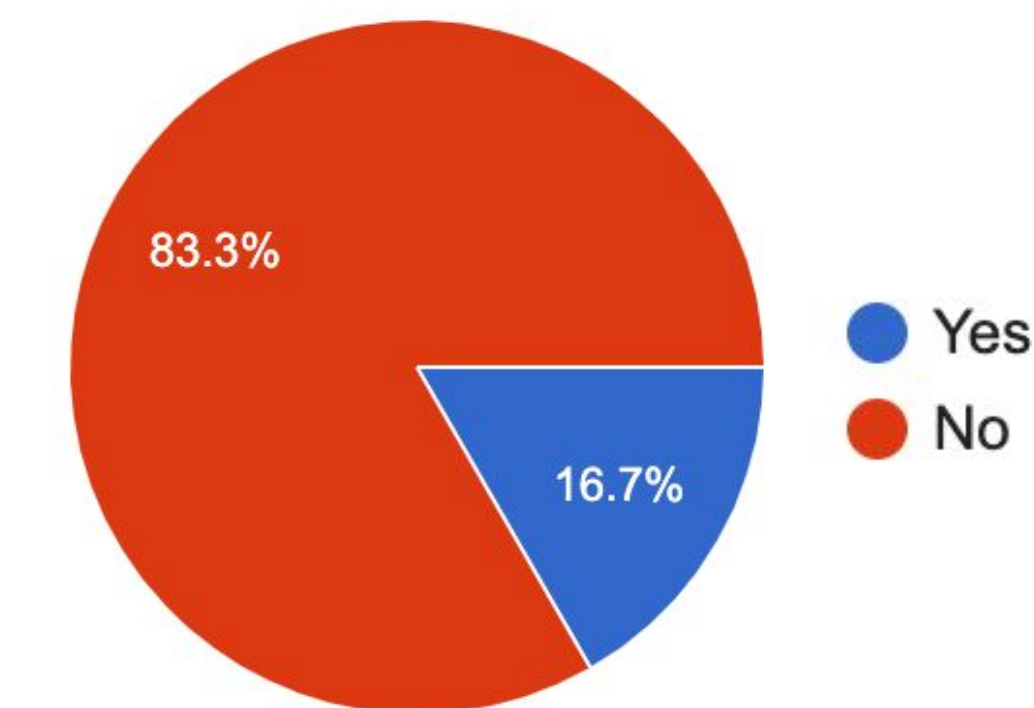
Level of Agreement With the Statement: *"The resident mentors have helped me understand the process of developing a research question"*



Percentage of STEM Students With Intent to Enroll in Pre-Medical Courses in College

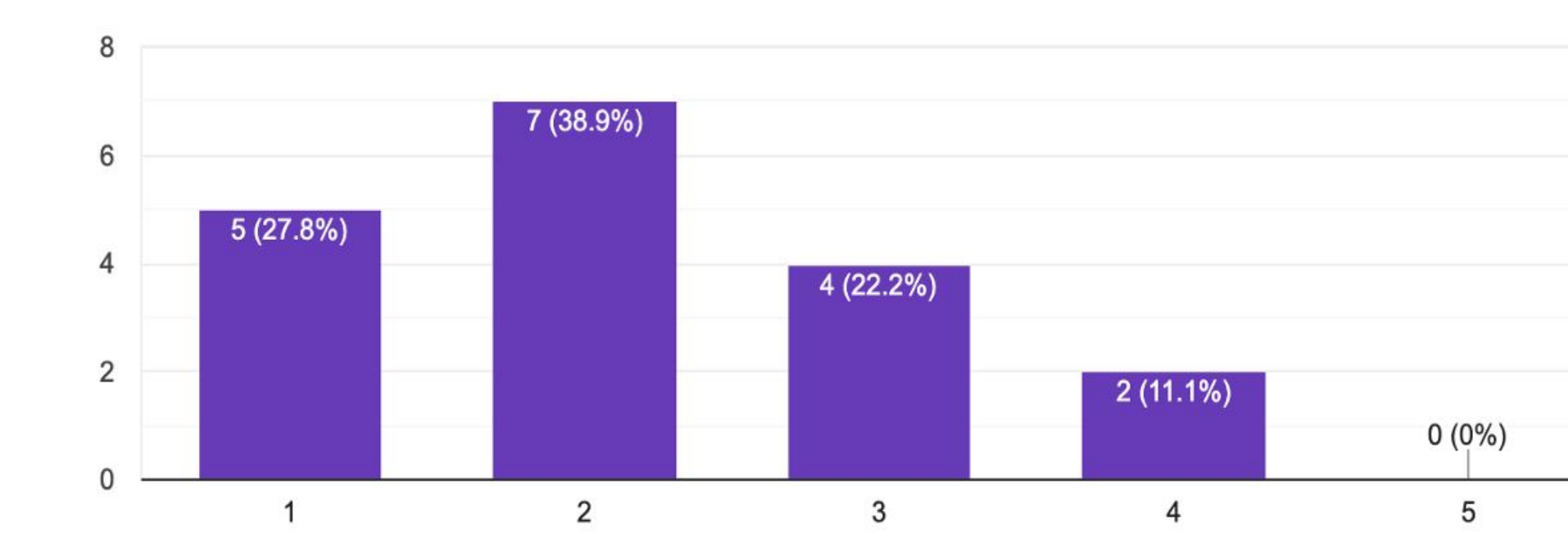


Student Interest in a Career in Healthcare Beginning of Collaboration

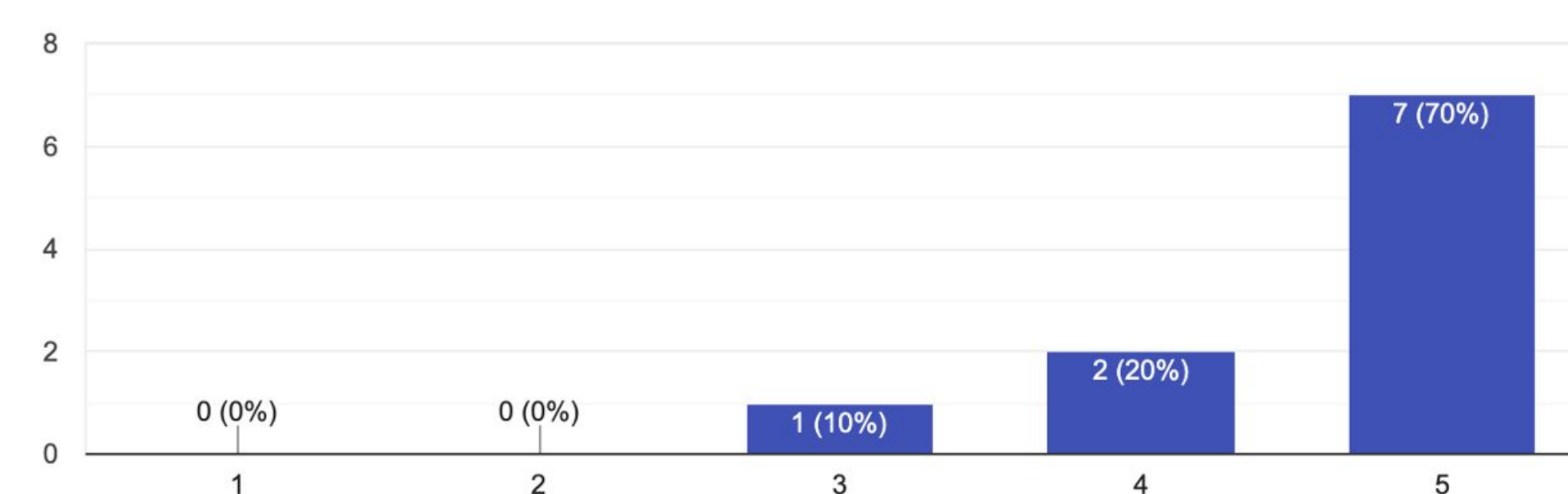


9 Month Follow-Up

After working with the resident mentors, how likely are you to pursue a career in a healthcare field?



Resident Level of Interest In Mentoring STEM Students After Collaboration on a 5 Point Likert Scale



CONCLUSIONS

- 44.4% of STEM students were undecided regarding enrollment in a pre-medical track in college, therefore, a collaboration with residents has the ability to inspire young scientists to pursue a career in medicine
- At 9 month follow-up, student interest in a healthcare field doubled (16.7% at baseline; 33.3% rated a 3 or 4 on a Likert scale at 9 month follow-up)
- Family Medicine Residents are interested in obtaining further training in medical education- an area that can be built into training programs to improve such collaborations.

NEXT STEPS

- Continue to expand our partnership and mentor the students as they progress through high school
- To create a curriculum for resident mentorship that can be replicated across family medicine residency programs