

ABSTRACT

The University Preparatory Sports Medicine Academy was designed to expose underrepresented middle and high school students to mentors within the healthcare professions, and common topics in medical education. UPSMA's objective is to increase awareness and matriculation of students of color into the health professions and provide age-appropriate healthcare literacy information. Following participation, a modest increase in knowledge of healthcare professions and expressed interest in pursuing a career in healthcare was observed. Creation of a general health literacy knowledge assessment is a future goal of this study.

BACKGROUND

"What do you want to be when you grow up?" "Oh, I'm going to the league. I'm the next Michael Jordan, no doubt."

In 2020 the National Collegiate Athletic Association (NCAA) reported¹ the estimated probability of a high school student competing at a collegiate level: basketball = 3.5%; football 7.3% (1.6 million high school athletes across both sports). For players drafted from the NCAA to major pro leagues, this percentage was reduced to less than two percent for both sports! Although other sources for pro players exist, e.g., internationally, developmental affiliate leagues, combines, etc., 87% of major pro basketball draftees and 100% of major pro football draftees in 2020 were 2019-2020 NCAA athletes.

The NCAA is a major gatekeeper for athletics.

Simultaneously, a local survey of students at University Preparatory Charter School (U PREP) in Rochester, NY reports four in five students across middle and high school have myopic intentions of pursuing professional athletic careers. Furthermore, although four-year high school graduation rate at U PREP is almost double that of the Rochester City School District and performance on four out of six STEM-related New York State Regent Exam's is equivalent to or better than the remaining district, less than one-third of the graduating class pursue education at a 4-year institution. Of these students, on average, 99% percent pursue education at an institution in Rochester. How many students last year attended the only undergraduate institution (University of Rochester) in the city with an affiliated medical school (University of Rochester School of Medicine and Dentistry)? One. Since its founding in 2010, how many students from U PREP have become physicians, nurses, or other healthcare professionals (EMTs, OTs, etc.)? Zero.

If a professional sports career is the goal, and an NCAA institution is the best option, why are these students not matriculating into them?

Furthermore, if state examinations deem these students "college-ready", why aren't more pursuing bachelor's degrees? How can we inspire them to consider these institutions and other careers?

Lastly, given that over three-fourths of the student population receive free or reduced school lunch, and socio-economic status is a well-established social determinant of health³, it is not farfetched to assume this population of students, all male & 92% African American, could benefit from engaging, age-appropriate healthcare literacy courses.

Would this population of students be interested in this content? Would it benefit them not only in sports but everyday life?

OBJECTIVES

- Assess the attitudes and change in attitudes of the career objectives of middle and high school students as a result of participation in the UPSMA
- Increase resiliency factors (perseverance, passion, grit, etc.) of students who participate in the UPSMA
- Improve concrete knowledge of nutrition, mental health, common health care pathologies, sports injury, and first aid as a result of participation in the UPSMA
- Increase matriculation of UPSMA participants into 4-year institutions and/or pathways into the healthcare professions
- Improve UPSMA student perceptions of healthcare professions, thereby fostering healthy patient-provider relationships
- LONG TERM: Establishment of an 8-year high school to undergraduate to medical school pipeline program for underrepresented students SPECIFICALLY from this school. (A program at the University of Rochester similar to this already exists, but does not target underrepresented students:
<https://admissions.rochester.edu/academics/remis/>)

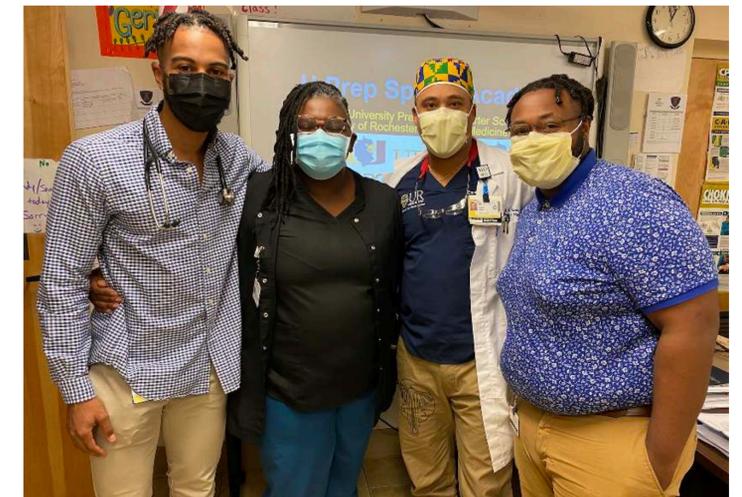


METHODS

This endeavor began with the formation of a planning committee to develop and review medical education curriculum, survey assessments, and upcoming facilitator feedback. Pairs, consisting of physicians, nurses, physician assistants, medical students, emergency medicine technicians, occupational therapists, etc., facilitated two, one-hour workshop sessions once a month for two groups of middle (8th grade) OR high school (12th grade) students, and ate lunch (one hour) with these students. On select weekends throughout the school year, a diverse array of medical education activities were planned: concussion assessment, treatment of traumatic limb injury, how to do CPR, STOP THE BLEED, etc.

RESULTS

Prior to instituting the UPSMA, the overwhelming majority (87%) of students myopically intended on pursuing a career in professional sports. When surveyed on their knowledge of careers in the health professions, students on average could name 3 health care career paths. Following participation in the UPSMA, first choice as healthcare profession for intended career was increased by 14%. Furthermore, only 54% of students included a professional sport as an intended career choice. Additionally, when asked to name healthcare career paths, students, on average, were able to name 6 healthcare career paths.



CONCLUSIONS

Methodologies for analyzing concrete knowledge of nutrition, mental health, common health care pathologies, sports injury, etc. before and after intervention must be revisited with the institution of the UPSMA next year. A concise assessment based on the materials that will be taught throughout the year should be administered prior to intervention. Such an endeavor is more feasible this upcoming year as educational content has been created.

Assessment of matriculation into 4-year institutions and/or healthcare profession programs and the establishment of an 8-year high school to undergraduate to medical school pipeline are long-term goals of this program.