

Bridging the Gap by Being the Change

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Preceptor: Ms. Jodi Cook, Educator, Health Science Pathway, East Upper High School

INTRODUCTION

In Monroe County, Black and Latinx students consistently report a higher number of adverse childhood experiences; these experiences are well known to increase the likelihood of poor behavioral and health outcomes. High schools play a critical role in promoting mental wellness. Students who report receiving encouragement at school or having a non-parental adult with whom they could speak have better mental health outcomes (2019 Monroe County Youth Risk Behavior Survey Report).

Unfortunately, the COVID pandemic has further impacted underrepresented minorities. For instance, students receiving fully remote learning in Monroe County were predominantly Black and Latinx (Democrat and Chronicle). There is a clear need to counter the disproportionate negative effects COVID-19 has had on this population. As a relatable role model, one way to support them is to meet them in their classroom and teach them topics that are relevant to them and their families.

COMMUNITY PARTNER

For the 2019-2020 academic year, enrollment records for East Upper High School showed that 366 (55%) of the student body identified as Black or African American and 218 (33%) identified as Hispanic or Latinx. Of 668 students total, an overwhelming majority (584; 88%) identify as an underrepresented minority (URM).

Additionally, of the 668 students enrolled at East Upper High School from 2019 to 2020, 556 (83%) were economically disadvantaged. As most students are underrepresented minorities from low socioeconomic backgrounds, there exists an opportunity to address educational and healthcare disparities experienced in their communities by teaching health sciences while simultaneously increasing their interaction with role models from similar backgrounds. In an attempt to bridge the educational and healthcare gaps, I partnered with Ms. Jodi Cook, educator at East High School, who allowed me to teach the Health Science Pathway curriculum for 6 weeks.

COMMUNITY HEALTH IMPROVEMENT PROJECT

Lesson plans were created in alignment with national health science standards designated by The National Consortium for Health Science Education. Additionally, I added topics that students wanted to learn more about such as healthcare disparities, asthma, hypertension, cardiovascular disease, stroke and professionalism. My project & lesson-planning consisted of 3 main components:

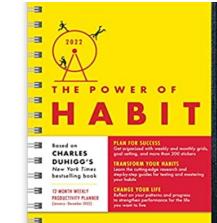
Relatable role models:



Interactive/hands-on learning:



Modeling important habits:



Project measures included pre- and post-assessment surveys given before and after each lesson which consistently showed that teaching strategies were effective (results below). After course completion, students were asked for feedback on their experience of having a medical student as an instructor.

Assessment: (Topic)	ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7	ID 8	ID 9
PRE (Patient bill of rights)	100%	100%	100%	100%	80%			100%	100%
POST	100%	100%	100%	100%	100%	100%	100%	100%	100%
PRE (Professionalism)	80%	55%	75%	95%	85%	85%	75%		95%
POST	90%	80%	85%	95%	90%	90%	85%		95%
PRE (Vital Signs)		25%	17%	58%	33%	17%		33%	42%
POST		75%	92%	92%	92%	67%	75%	92%	100%
PRE (Healthcare disparities)	50%	75%	50%	63%	75%	63%		50%	100%
POST	80%	80%	100%	100%	100%	80%	100%	100%	100%
POST (Asthma)			100%	100%	100%	83%	100%		100%
PRE (Stroke)	60%	50%	80%	70%	70%	60%	70%		90%
POST			100%	100%		100%			100%

CONCLUSIONS

When considering the impact of the pandemic on vulnerable populations, it's important to consider how we can protect and empower vulnerable populations like URM high school students from low SES backgrounds.

Though measurements of this project were limited to capturing the short-term effects of teaching (assessment scores), feedback received from students implies possible long-term effects on their self-esteem as well as behavioral and academic outcomes. When asked what their biggest takeaways were, students' responses were invariably positive. Many noted learning about their community, knowing 'people like [them]' can be successful, and increased engagement with health science as highlights of the curriculum.

Because the class took place from 7:30 – 8:42 a.m., many students were occasionally late or absent thereby altering the validity of pre- and post-assessment scores. There were 16 total enrolled students; however, 9 of 16 attended class consistently. All 16 students' pre- and post-assessment scores showed an increase in score after lessons.

IMPACT AND SUSTAINABILITY

Ms. Jodi Cook has noticed a clear positive effect in students' engagement when URSMD students assist in the classroom. She welcomes any interested URSMD students to email her directly at Jodi.Cook@RCSDK12.org if they would like to pursue a similar project to mine or a variation of this 6-week course.

Research has shown that female and URM students in STEM fields especially benefit from having relatable role models. Expected beneficial effects of having more positive relatable role models teaching health sciences at East Upper High School are to increase exposure of students to positive role models from similar backgrounds, improve student engagement in the health sciences, improve self-esteem and academic outcomes of Black and Latinx students in our community.