

Mobilizing Physician Assistants: Educational Outreach to Underserved Urban Communities

Purpose

Underrepresented minority (URM) communities face challenges accessing healthcare due to shortages of healthcare providers,¹ which has been linked to a lack of diversity in medical professions in the U.S..² Pipeline programs in medicine and dentistry have been successful in increasing diversity through the enrollment of URM pre-college students to prepare for pursuing a career in the health care field.^{3–5} Drawing on past literature, we developed a pilot pre-college outreach program exposing underrepresented high school students to topics and skills related to the PA profession.

Methodology

mixed-methods This approach draws on study quantitative and qualitative data collected from student pre-college The study evaluates surveys. outreach program, which recruited underrepresented high school (HS) students in grades 10-12 from an urban high school in New Jersey for one academic year (2019-2020). The program consisted of five meeting sessions. PA students from a PA program were invited to volunteer as peer mentors in this MPA program. Pre- and postsurvey instruments to capture participants' experiences and knowledge.

Characteristics	Number of		
	Students	%	
Gender			
Male	6	25	
Female	18	75	
HS grade level			
10	7	29	
11	11	46	
12	6	25	
Ethnicity			
Asian or Pacific Islanders	8	33	
Black or African Americans	1	4	
Caucasian (non-Hispanic)	4	17	
Hispanic or Latino/a	11	46	
Prior Participation to the program (2019)			
Yes	11	46	
No	13	54	

Table 1. Pre-Program Survey Characteristics of High School Students Participated in the Mobilizing PA Program.

Mirela Bruza-Augatis, MS, PA-C, Vanessa Rodriguez, MS, PA-C, Jason Burns, PhD Department of Physician Assistant, School of Health and Medical Sciences, Seton Hall University

Results

Qualitative findings revealed students integrated their concrete experience gained in the program with their knowledge of the healthcare professions. Overall, student responses indicated participants gained knowledge of the PA profession through-the MPA program; but these experiences did not significantly increase their interest in becoming a PA. Although, they still expressed to be "very to moderately interested" in applying to a PA program in the future.

	Ν	М	SD	SE	Significance
HS Completed the Pre- program Survey.	24	4.1	.85	.17	*
HS Completed the Post- program Survey.	19	3.5	1.12	.25	*

Note. N= high school students who completed the survey; M= Mean; SD = Standard Deviation; SE = Standard Error; Students interested to apply to a PA school ranges from 1 (not interested) to 5 (extremely interested). Significance: *p<.05

Table 2. *t-test* Results Comparing Pre- and Post-program of High school Students Interest to Apply to PA School.



Figure 1: Hands on Skill Workshops



Figure 3. Student Poster Presentations

Figure 2. Mentorship

Conclusions

Our findings show that pipeline programs can help students learn about the PA profession, but further research is needed to examine how they shape career aspirations. We interpret these results as suggesting participants gained knowledge of the PA profession. Additional research could address this by increasing data collection on students' experiences in the program and their long-term goals. Thus, we propose a multiinstitutional PA school pre-college outreach program with various HS districts throughout the U.S. that would provide a larger and more representative sample with statistical power. This may allow researchers to examine the relationships that different program characteristics have with outcomes.

Acknowledgments

Special thanks to nccPA Health Foundation, Seton Hall University Department of Physician Assistant, and Clifton Public Schools.

References

- 1. CDC Health Disparities & Inequalities Report (CHDIR) Minority Health CDC. Newsroom Archive. Accessed January 3, 2022. https://www.cdc.gov/minorityhealth/CHDIReport.html
- 2. Betancourt JR, Maina AW. The Institute of Medicine Report "unequal treatment" Implications for academic health centers. *Mt Sinai J Med*. 2004;71(5):314-321.
- 3. Metcalfe SE, Lasher R, Lefler LJ, Langdon S, Bell R, Hudson D. Pipeline programs to increase the diversity of health professional students at Western Carolina University: Combining efforts to foster equality. J Best Pract Heal Prof Divers *Educ Res Policy*. 2017;10(2):135-140.
- 4. Stewart KA, Brown SL, Wrensford G, Hurley MM. Creating a Comprehensive Approach to Exposing Underrepresented Pre-health Professions Students to Clinical Medicine and Health Research. J Natl Med Assoc. 2020;112(1):36-43. doi:10.1016/j.jnma.2019.12.003
- 5. Roche R, Manzi J, Baker S, Ndubuizu T. Under-represented minority students and identification of obstacles to a career in medicine. *Clin Teach*. 2021;18(2):186-190. doi:10.1111/tct.13312
- 6. Kolb DA. *Experience as the Source of Learning and Development Second Edition*. Second Edition.; 1984.



BPAHealth

oundation