

James Madison University

JMU Scholarly Commons

Physician Assistant Capstones, 2020-current

The Graduate School

12-15-2023

Is racial diversity important when applying to JMU PA program?

Gaelyn E Young

Deonte J. Hope

James Madison University

Follow this and additional works at: <https://commons.lib.jmu.edu/pacapstones202029>



Part of the [Bioethics and Medical Ethics Commons](#), [Experimental Analysis of Behavior Commons](#), [Interprofessional Education Commons](#), [Medical Humanities Commons](#), [Multicultural Psychology Commons](#), and the [Social Psychology Commons](#)

Recommended Citation

Hope, D.J., Krickovic, G.E.Y., Isracialdiversityimportantwhenapplyingtojmupaprogram, Fall 2023

This Capstone is brought to you for free and open access by the The Graduate School at JMU Scholarly Commons. It has been accepted for inclusion in Physician Assistant Capstones, 2020-current by an authorized administrator of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.

Is Racial Diversity important when applying to the JMU PA program?

Deonte J. Hope, PA-S and Gaelyn Elliott Young, PA-S

Department of Health and Behavioral Sciences, James Madison University

Ashely Skelly, PA-C, Dr. Abby Massey, M.D.

Abstract

Purpose:

The Physician Assistant profession is predominantly female and Caucasian. In order to increase the diversity of the profession at the level of the workforce, it is necessary to examine PA programs' role as the entryway into the profession. To that end, this evaluation aimed at surveying current and future PA students at James Madison University to understand whether racial diversity of both the program's cohort and/or its faculty was a factor in their decision to apply and/or attend the school.

Methods

From September 2022 to December 2022, 221 students completed an anonymous online survey using QuestionPro. These students included: James Madison University Physician Assistant students from the 2022, 2023, and 2024 cohorts; JMU PA school applicants who were invited to and participated in the September - December 2022 interview process; and all current fall 2022 JMU Pre-PA Club members. All students were notified that this was an optional survey and that they must be over the age of 18 to complete the research. The study was approved by the institutional review board of James Madison University.

Results

The overwhelming majority (98.6%) of surveyed students believe having a diverse healthcare team is important for patients and their healthcare outcome. Additionally, 62.1% of the minority students surveyed reported that the diversity of the program's cohort played a significant role in their decision to apply or attend a program and 91.4% were more likely to apply to a program if its current and previous cohorts are racially diverse.

Conclusion

The need for increased diversity in the PA profession is recognized by the majority of applicants studied in this survey. The diversity of a program's cohort plays a significant role for minority students when they are deciding to apply or attend a program. PA programs that wish to increase their diversity should take this information into consideration and create intentional targets to underrepresented communities to increase access and decrease barriers to the profession.

Introduction:

The Physician Assistant profession began as an initiative to address the growing need for primary care physicians in the United States during the late 1960s and has now progressed to PAs being represented in almost all specialties of medicine. Since its inception, the profession has progressed from a small, male dominated line of work in 1968 to over 148,000 practitioners as of 2022, of whom 69.7% identify as female.^{1,2} However, although the profession has grown exponentially in numbers, the demographic composition of PA practitioners does not correlate with the current US population of which it serves. Currently, the United States population is 50.5% female with 75.8% Caucasian, 13.6% Black or African American alone, 18.9% Hispanic or Latino, 2.9% mixed race, 6.1% Asian alone, and 1.3% Native American/Alaskan Native.³ Of the 148,019 active Physician Assistants in the U.S., 3.6% identify as Black/African American, 6% identify as Asian, 6.6% identify as Hispanic while 80.8% identify as Caucasian.¹ This is significant because the more diverse a medical profession is, the more access the population has to quality medical care.⁴ For example, a 2016 systematic literature review found that practitioners who identified as belonging to underrepresented minority (URM) groups were more likely than their non-URM counterparts to work in underrepresented or rural areas themselves.⁵

Additionally, people that spoke specific languages were more likely to locate to an area with a high population of native speakers, thereby providing healthcare to those who might otherwise fall through the cracks due to language barriers or isolation.⁶ Therefore, in order to increase access and equity in the healthcare field, and help to reduce disparities, the PA profession must diversify its cohort in order to meet the needs of the current US population.

Since the profession begins at the level of education, it can be deduced that Physician Assistant programs serve as the avenue through which efforts to increase diversity can be focused. However, in order to develop a more diverse program cohort, it is prudent to gain insight into what appeals to PA applicants, and more specifically, minority applicants, when deciding to apply and matriculate to a particular program. The purpose of this evaluation is aimed at surveying current and future PA students to understand whether racial diversity of both the program's cohort and/or its faculty was a factor in their decision to apply and/or attend the school.

Methods

From September 2022 to December 2022, 221 students completed an anonymous online survey using QuestionPro. These students included: James Madison University Physician Assistant students from the 2022, 2023, and 2024 cohorts; JMU PA school applicants who were invited to and participated in the September - December 2022 interview process; and all current fall 2022 JMU Pre-PA Club members. All students were notified that this was an optional survey and that they must be over the age of 18 to complete the research. The study was approved by the institutional review board of James Madison University.

Measures

Demographics

Survey participants provided demographic information regarding sex, race, gender, ethnicity, and their childhood communities. They were also asked to list their current year in PA school (if applicable) and how they were first introduced to the Physician Assistant profession. They were also asked to identify up to two barriers that they experienced when applying to PA school from

a pre-populated list. The participants were asked to report on how the racial diversity of a program's student body and faculty factored into their decision to apply and attend a specific PA program. Using these responses, statistical analysis was used to investigate whether self-reported gender, race, and community background was associated with students' probability of ranking diversity as being of higher importance in their decision-making process when applying to and attending PA school.

Consideration of Program Diversity

Surveyors considered whether a program's racial diversity affects/affected their decision to apply to a particular PA program and whether it affects/affected their decision to attend a particular PA program. Surveyors responded in a "yes," "no" format as displayed in Table 2.

Consideration of Program Faculty Diversity

Surveyors considered whether the racial diversity of a program's faculty affects/affected their decision to apply to a particular PA program and whether it affects/affected their decision to attend a particular PA program. Surveyors responded in a "yes," "no" format as displayed in Table 2.

Importance of program diversity

Surveyors were asked to rate the importance of racial diversity of a programs cohort in their decision to apply to a program on a scale from 1-5 with 5 being "Important" and 1 being "Not Important." Surveyors were asked to rate the importance of racial diversity of a program's faculty in their decision to apply to a program on a scale from 1-5 with 5 being "Important" and 1 being "Not Important." These results are displayed in Table 3.

Statistical Analyses

Descriptive statistics for all categorical (frequency (proportions)) and discrete (mean \pm standard deviation) data was calculated for: the total sample, the Minority group, and the non-minority group. The proportion of participants in the Minority and Non-Minority groups who answered “Yes” to questions in Table 2 using separate 2x2 Chi-Squared tests ($P>0.05$) were compared. Participants rating scores (1-5) were compared for the questions in Table 3 using separate Mann-Whitney tests ($P>0.05$). For the statistical analysis everyone was selected and a race other than white was included in the non- minority category.

Table 1. Participant Demographics

	Total Sample (N=221)	Minority (n=58)	Non-Minority (n=163)
Gender			
Female	178 (80.5%)	45 (77.6%)	133 (81.6%)
Male	41 (18.5%)	11 (19.0%)	30 (18.4%)
Non-binary	1 (0.5%)	1 (1.7%)	0 (0%)
Prefer not say	1 (0.5%)	1 (1.7%)	0 (0%)
Race			
Asian	25 (11.3%)	25 (43.1%)	0 (0%)
Black/African American	6 (2.7%)	6 (10.3%)	0 (0%)
Caucasian	163 (73.8%)	0 (0%)	163 (100%)
Hispanic	10 (4.5%)	10 (17.2%)	0 (0%)
Indian	3 (1.4%)	3 (5.2%)	0 (0%)
Middle Eastern	5 (2.3%)	5 (8.6%)	0 (0%)
Multi-Racial	8 (3.6%)	8 (13.8%)	0 (0%)
Other	1 (0.5%)	1 (1.7%)	0 (0%)

Table 2. Influence of Cohort & Faculty Racial Diversity on Decisions to Apply and Attend Physician Assistant Programs in Minority and Non-minority Applicants

	Total Sample (N=221)	Minority (n=58)	Non- Minority (n=163)	p-value
Did/Does the racial diversity of a program's current and previous cohorts affect your decision to apply to a particular PA program?	69 (31.2%)	36 (62.1%)*	33 (20.2%)	<0.001
Did/Does the racial diversity of a program's current and previous cohorts affect your decision to attend a particular PA program?	80 (36.2%)	36 (62.1%)*	44 (27.0%)	<0.001
Did/Does the racial diversity of a program's faculty affect your decision to apply to a particular PA program?	51 (23.1%)	27 (46.6%)*	24 (14.7%)	<0.001
Did/Does the racial diversity of a program's faculty affect your decision to attend a particular PA program?	57 (25.8%)	26 (44.8%)*	31 (19.0%)	<0.001
Do you feel that it is important to have racially diverse healthcare providers?	218 (98.6%)	58 (100%)	160 (98.2%)	0.30

Data presented as frequency (proportion) of participants who answered "Yes" to the question.

* = Significantly greater proportion of Minority participants answered "Yes" compared to Non-Minority

Table 3. Ranked Importance of Cohort & Faculty Racial Diversity on Minority and Non-minority Applicants' Decisions to Apply to Physician Assistant Programs

	Total Sample (N=221)	Minority (n=58)	Non-Minority (n=163)	p-value
How important is the racial diversity of a PA program's cohort in your decision to apply to said program?	3.3 ± 1.2	4.1 ± 1.0*	3.0 ± 1.0	<0.001
Important (5)	16 (16.3%)	25 (43.1%)	11 (6.7%)	
Somewhat important (4)	13 (33.0%)	22 (37.9%)	51 (31.3%)	
Neutral (3)	15 (29.4%)	7 (12.2%)	58 (35.6%)	
Somewhat not important (2)	17 (7.7%)	2 (3.4%)	15 (9.2%)	
Not important (1)	10 (13.6%)	2 (3.4%)	28 (17.2%)	
How important is the racial diversity of a PA program's faculty in your decision to apply to said program?	3.1 ± 1.2	3.7 ± 1.1*	2.9 ± 1.2	<0.001
Important (5)	14 (10.9%)	13 (22.4%)	11 (22.4%)	
Somewhat important (4)	16 (29.9%)	22 (37.9%)	44 (27.0%)	
Neutral (3)	15 (33.9%)	16 (27.6%)	59 (36.2%)	
Somewhat not important (2)	13 (10.4%)	4 (6.9%)	19 (11.7%)	
Not important (1)	13 (14.9%)	3 (5.2%)	30 (18.4%)	
If there were two PA programs that were similar in all aspects except for the racial diversity of their cohorts and faculty, how likely would you be to apply to the more racially diverse program?	4.0 ± 0.8	4.4 ± 0.7*	3.8 ± 0.8	<0.001
Most likely (5)	13 (28.5%)	28 (48.3%)	35 (21.5%)	
Likely (4)	13 (42.1%)	25 (43.1%)	58 (41.7%)	
Neutral (3)	10 (27.1%)	4 (6.9%)	56 (34.4%)	
Unlikely (2)	5 (2.3%)	1 (1.7%)	4 (2.5%)	
Will never (1)	0 (0%)	0 (0%)	0 (0%)	

* = Significantly greater rating score (1-5) in the Minority group compared to the Non-minority group

Data presented as mean ± standard deviation of rating scores and frequency (proportions) of participants who selected the ranking for each question.

Results

Participant Characteristics

The survey was sent to 256 JMU PA program applicants, Pre-PA students, and current PA students during the fall 2022 semester. Of the 256 students, 221 completed the survey in totality; the completion rate was 86.3%. Participant demographics are summarized in Table 1. The majority of the sample identified as female (n=178, 80.5%) while 41 identified as male (18.5%), 1 identified as non-binary (0.5%), and 1 preferred not to say (0.5%). The majority of the applicants identified as Caucasian (n=163, 73.8%).

62.1% of Minority applicants that completed the survey reported that the racial diversity of the current/previous student cohort and the racial diversity of faculty did/does affect their decision to apply and to attend PA programs. There was no significant difference found in the proportion of applicants who feel that it is important to have racially diverse healthcare providers between the Minority and Non-minority groups (Table 2).

Minority applicants rated that the racial diversity of a PA program's cohort and faculty was/is more important in their decision to apply to a program compared to non-minority applicants (Table 2) but that the diversity of the cohort itself was more important (n=36, 62.1%) to minority applicants than faculty diversity, (n=27, 46.6%) when applying to programs. This was significantly larger than the importance that non-minorities placed on cohort diversity in their decision to apply to programs, (n=33, 20.2%). Interestingly, the racial diversity of a program's cohort was more important in these students' decision to actually attend a particular program, (n=44, 27.0%). If two PA programs were similar except for the racial diversity of their student cohorts and faculty, Minority applicants (n=53, 91.4%) reported they were more likely or likely to apply to the more racially diverse PA program compared to non-minority applicants (n=103, 63.2%). However, it should be noted that racial diversity did matter significantly to both minority and non-minority surveyors.

Limitations:

This study was not without limitations. Although students that completed this survey came from a variety of backgrounds and states, they were predominantly white, which might have skewed the results that were obtained since the percentage of minority students was small in comparison. In addition to the lack of minorities that participated, there was a large difference in the number of males versus females who completed the survey. This limitation is likely due to the profession being made up majority by people who identify as female. Another limitation observed was the condensed time we had to obtain more participants in the initial data collection phase since data collection was confined to just over three months.

Discussion:

This study assessed the role that racial diversity plays in a student's decision to apply or attend a particular physician assistant program. The importance of racial diversity in the advanced practice provider and physician populations has been demonstrated through a variety of research articles.^{5,7,4} As mentioned in the introduction, minority groups are more likely to seek and adhere to medical advice from providers with similar racial backgrounds, who speak the same language, and these providers, in turn, are more likely to serve underserved communities upon graduation.⁵ To that end, in order to increase the number of practicing minority PAs, the entryway into the profession, PA programs must have a better understanding of the role that

diversity plays in minority and non-minority applicants' thought processes when applying and attending programs. The findings of this research are congruent with previous research that have demonstrated that racial diversity of a PA programs cohort matters to minority applicants and is a factor in their decision process when applying to and attending a school.⁸

As mentioned previously, this survey was limited in scope to only participants either attending or applying to James Madison University's Physician Assistant program during the Fall of 2022 as well as pre-PA students at JMU. Additionally, statistical analysis was only done on racial diversity as a whole and was not subcategorized into specific gender preferences nor did it examine the role of socioeconomic class on an applicant's decision process. Further analysis and research can be done to examine those specific topics more closely. Since this research focused primarily on one specific school in Virginia, the next step could be to expand the number of surveyed participants to include all Virginia PA programs. Previous research and implementation efforts from the University of Utah resulted in a 3-fold increase of its minority matriculated students over the course of five admission cycles through intentional and targeted diversity efforts that focused on messaging, admission, recruitment, and retention.⁹ Moving forward, this research supports actions that might include a targeted approach specific to JMU such as creating pipelines or linkage programs with local high schools and/or Historically Black Colleges and Universities. Likewise, programs could create an internship program with local high schools where students shadow a healthcare professional for a certain number of hours a semester. Alternatively, programs could implement mentoring relationships between the students of the JMU Pre-PA Club and high-school students. In addition to efforts made in the community, evaluating the admissions process to ensure it has a holistic approach which includes assessing students on characteristics outside of basic standardized test scores and grade point averages. Finally, having support systems in place that might allow open dialogue for minority students to share their experiences can be very attractive to potential applicants. These support systems could be mentors in the profession itself who are recent graduates or simply having a diversity chair for the graduate programs at JMU.

Bibliography

1. 2021 Statistical Profile of Certified Physician Assistants: An Annual Report of the National Commission on Certification of Physician Assistants. National Commission on Certification of Physician Assistants; 2022. Accessed September 25, 2022. <https://www.nccpa.net/wp-content/uploads/2022/08/2021StatProfileofCertifiedPAs-A-3.2.pdf>.
2. McDaniel MJ, Ruback TJ. Physician Assistant Applicant Pool: The First 50 Years. *Journal of Physician Assistant Education*. 2017;28(Supplement 1):S18-S23. doi:10.1097/JPA.000000000000145
3. U.S. Census Bureau. Quick Facts: Population Estimates, Race and Hispanic Origin.; 2021. Accessed September 25, 2022. <https://www.census.gov/quickfacts/fact/table/US/PST045221>
4. Jackson CS, Gracia JN. Addressing Health and Health-Care Disparities: The Role of a Diverse Workforce and the Social Determinants of Health. *Public Health Rep*. 2014;129(1_suppl2):57-61. doi:10.1177/00333549141291S211
5. Goodfellow A, Ulloa JG, Dowling PT, et al. Predictors of Primary Care Physician Practice Location in Underserved Urban or Rural Areas in the United States: A Systematic Literature Review. *Academic Medicine*. 2016;91(9):1313-1321. doi:10.1097/ACM.0000000000001203
6. Moreno G, Walker KO, Morales LS, Grumbach K. Do Physicians with Self-Reported Non-English Fluency Practice in Linguistically Disadvantaged Communities? *J GEN INTERN MED*. 2011;26(5):512-517. doi:10.1007/s11606-010-1584-6
7. Komaromy M, Grumbach K, Drake M, et al. The Role of Black and Hispanic Physicians in Providing Health Care for Underserved Populations. *N Engl J Med*. 1996;334(20):1305-1310. doi:10.1056/NEJM199605163342006
8. Yuen CX. Strength in Differences? The Importance of Diversity to Students When Choosing a Physician Assistant Program. *J Physician Assist Educ*. 2019;30(3):143-148. doi:10.1097/JPA.0000000000000259
9. Ryujin D, Spackman J, Honda TJ, et al. Increasing Racial and Ethnic Diversity at the University of Utah Physician Assistant Program. *Fam Med*. 2021;53(5):372-375. doi:10.22454/FamMed.2021.923340