Transition to medical school: Assets and gaps in resources identified by PreMedical Admissions Pathway students

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# Introduction

Racial and ethnic minorities are disproportionately impacted by health disparities.<sup>1</sup> The presence of these disparities is rooted in social, economic, and historical factors. There is evidence that race concordant patient-physician relationships are associated with increased patient involvement in their own care as well as greater adherence to treatment, both of which have the potential to decrease health disparities.<sup>4</sup> In addition, physicians who are racial/ethnic minorities themselves are more likely to practice in underserved communities, working with higher proportions of patients who are racial/ethnic minorities, uninsured, or on Medicaid, compared to other physicians. 1,6 Unfortunately, racial and ethnic disparities in physician workforce diversity also persist. Post baccalaureate programs have demonstrated a role in both increasing physician workforce diversity and increasing the proportion of physicians practicing in underserved regions and/or with underserved populations.<sup>2,3,5,7,8</sup>

**Objective:** The PreMedical Admissions Pathway (P-MAP) program is a University of Arizona based post baccalaureate premedical program that targets applicants who are underrepresented in medicine. This study seeks to review the assets and gaps in support resources identified by participants of the P-MAP program in order to inform improvements for future cohorts of this program.

## Methods

Eleven students from the inaugural cohort of the 12 month P-MAP program at the University of Arizona, Tucson participated in semi-structured interviews conducted at 2 different time points over the course of their year in the P-MAP program. Interview transcripts were coded utilizing ATLAS.ti software. Qualitative methods were employed in the analysis of the coded interview transcripts. Data associated with the following codes were subjected to content analysis: Networking; Peer Relationships; School Personnel Interactions; Skills Needed/Hoped For; Mentoring Support System; Students' Interaction With Faculty; Feel/Felt Comfortable. Themes pertaining to assets and gaps in support resources within the P-MAP program were then identified.

## Results

Within the selected codes, assets included (frequency): Approachable and/or helpful faculty (18), mentoring/support from P-MAP faculty and staff (13), support structure within P-MAP/facilitating access to resources (12), getting to know medical school faculty while in the P-MAP program (10), networking/exploring career interests with faculty (9), P-MAP curriculum/course and testing structure (7), cultural sensitivity/identity/background (3, within School Personnel Interactions, Mentoring Support System, and Students' Interaction With Faculty), peer networking (2), interdisciplinary relationships (2, within Peer Relationships and School Personnel Interactions).

Within the selected codes, gaps included (frequency): Need for more faculty who are underrepresented in medicine (5, within Skills Needed/Hoped For and Students' Interactions With Faculty), P-MAP curriculum/course and testing structure (3), learning how to develop a professional identity while maintaining a cultural identity (1), access to faculty involved in global health (1), Classes too large to get to know faculty (1).

Table 1. Asset and Gap Themes and Frequencies by Code

Code	Frequency/Asset Themes	Frequency/Gap Themes
Networking	2/Peer Networking within P-MAP and within the broader UofA community	0/None
Peer Relationships	1/Interdisiplinary relationships, recruiting 1/ Learning from peers within P-MAP	0/None
School Personnel Interactions	12/Support structure within P-MAP, facilitating access to resources  1/Cultural sensitivity  1/Interdisiplinary relationships	1/So many support staff that it can be unclear who to go to for help
Skills Needed/ Hoped For	1/Balancing the P-MAP curriculum and home life provides the opportunity to learn how to achieve balance prior to the start of medical school	1/Need greater exposure to people under-represented in medicine to learn how to become a professional while maintaining cultural identity
Mentoring Support System	13/P-MAP faculty and staff  1/P-MAP peers  1/Faculty with similar cultural identity  1/Faculty with nontraditional path to medicine	1/Access to Faculty involved in global health work
	18/Approachable, helpful  7/Curriculum, course and testing structure	
	9/Networking, similar career interests 2/Similar cultural background	structure  1/Classes too large to get to know faculty
Feel/Felt Comfortable	10/Getting to know medical school faculty while in P-MAP program	0/None

# Conclusions

Assets identified included Program faculty, mentoring/support, access to resources, and getting to know medical school faculty. The most prevalent gap was the desire for greater exposure to diverse faculty.

In order to further optimize the support of P-MAP students, efforts will need to be made to increase faculty diversity. Both continued efforts at increasing medical student diversity as well as further faculty recruitment/retention efforts should be employed, as both have been associated with medical schools who have greater faculty diversity.<sup>9,10</sup>

#### References

- 1. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Smedley BD, Stith AY, Nelson AR, editors. Washington (DC): National Academies Press (US); 2003.
- 2. Andriole DA, McDougle L, Bardo HR, Lipscomb WD, Metz AM, et al. Postbaccalaureate premedical programs to promote physician-workforce diversity. J Best Pract Health Prof Divers. 2015 Spring;8(1):1036-1048.
- 3. Andriole DA, Jeffe DB. Characteristics of medical school matriculants who participated in postbaccalaureate premedical programs. Acad Med. 2011 Feb;86(2):201-10.
- 4. Cooper-Patrick L, Gallo JJ, Gonzales JJ, Vu HT, Powe NR, et al. Race, gender, and partnership in the patient-physician relationship. JAMA. 1999 Aug 11;282(6):583-9.
- 5. Grumbach K, Chen E. Effectiveness of University of California postbaccalaureate premedical programs in increasing medical school matriculation for minority and disadvantaged students. JAMA. 2006 Sep 6;296(9):1079-85.
- 6. Komaromy M, Grumbach K, Drake M, Vranizan K, Lurie N, et al. The role of black and Hispanic physicians in providing health care for underserved populations. N Engl J Med. 1996 May 16;334(20):1305-10.
- 7. McDougle L, Way DP, Lee WK, Morfin JA, Mavis BE, et al. A National Longterm Outcomes Evaluation of US Premedical Postbaccalaureate Programs Designed to Promote Health care Access and Workforce Diversity. J Health Care Poor Underserved. 2015 Aug;26(3):631-47.
- 8. McDougle L, Way DP, Rucker YL. Survey of care for the underserved: a control group study of practicing physicians who were graduates of The Ohio State University College of Medicine premedical postbaccalaureate training program. Acad Med. 2010 Jan;85(1):36-40.
- 9. Page KR, Castillo-Page L, Wright SM. Faculty Diversity Programs in U.S. Medical Schools and Characteristics Associated with Higher Faculty Diversity. Academic medicine: journal of the Association of American Medical Colleges. 2011;86(10):1221-1228.
- 10. Peek ME, Kim KE, Johnson JK, Vela MB. "URM Candidates Are Encouraged to Apply": A National Study to Identify Effective Strategies to Enhance Racial and Ethnic Faculty Diversity in Academic Departments of Medicine. Academic medicine: journal of the Association of American Medical Colleges. 2013;88(3):405-412.

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