Breaking Barriers: Empowering under-represented minorities and modeling a peer-led program to increase diversity and inclusion in osteopathic medical schools

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Abstract

According to the American Medical Student Association (AMSA), diversity among the student body facilitates cultural competence in medical education. A study conducted at UCLA found that medical students who attend racially and ethnically diverse medical schools feel that they are better equipped to serve a diverse patient population. Physicians from under-represented racial/ethnic groups are likely to be able to better identify and empathize with racially/ethnically marginalized patients. AMSA also discusses that under-represented minorities (URM) physicians are more likely to practice in underserved communities[1]. Hence, having a diverse medical student body is important on many fronts. However, current levels of diversity among current medical student do not reflect the diversity of the US population. To the best of our knowledge, research as to why URM's *specifically* do not pursue careers in osteopathic medicine has not been established. We present two years of data collected from student led workshops aimed at gaining information about URM's journey in the medical school application process. When comparing survey data between 2018 and 2019, it is apparent that perceived lack of competitiveness and finances seemed to be major barriers that URM's have in pursuing careers in osteopathic medicine. Pre- and Post- survey data for 2018 (pre-survey, N=8; post-survey, N=14) and 2019 (pre-survey, N=21; post-survey, N=23) were analyzed to assess program efficacy and to discover what impacts were made on participants. Data from 2018 and 2019 showed statistically significant ($p < .05$) outcomes when assessing the participant's pre- and post- program knowledge on the medical school application process, understanding of what physicians do, and their understanding of differences between allopathic and osteopathic medicine. Future directions include a follow-up survey to DREAMers to view the progress on their medical school journey.

Hypothesis

If medical students provide a peer-led program to URM pre-medical students, then those participants would be more likely to seek out a medical education, including osteopathic medicine, and become community physicians.

Objective

Create a medical student-led workshop for URMs to learn the studies of an osteopathic medical student, and the path to become an osteopathic physician.

Methodology

Workshops and talks given during the program were carefully chosen to counter dis-empowering messages and the lack of role models while equipping aspiring "DREAMers" with skills and understanding of the medical school application process, life as a medical student, and the residency match process. Participants were surveyed before and after the program to 1) measure the impact our program had on their interest in pursuing medical school, and 2) gain insight into URM's perspective on their own application process as well as their healthcare experiences in the US.

All data other than parts listed in Table 1 are from the pre-survey given prior to the start of the DREAM program. The survey contained a variety of prompts requiring participants to answer questions based on a Likert scale as well enter free responses. Interpretation of Likert scales are used per prompt as demonstrated under Table 1. Free responses of perceived obstacles and deterrents to pursuing medical education were tallied and categorized as demonstrated in Figure 1. Participants were also prompted to think of personal identity conflicts with professionalism and free responses are displayed in Figure 2.
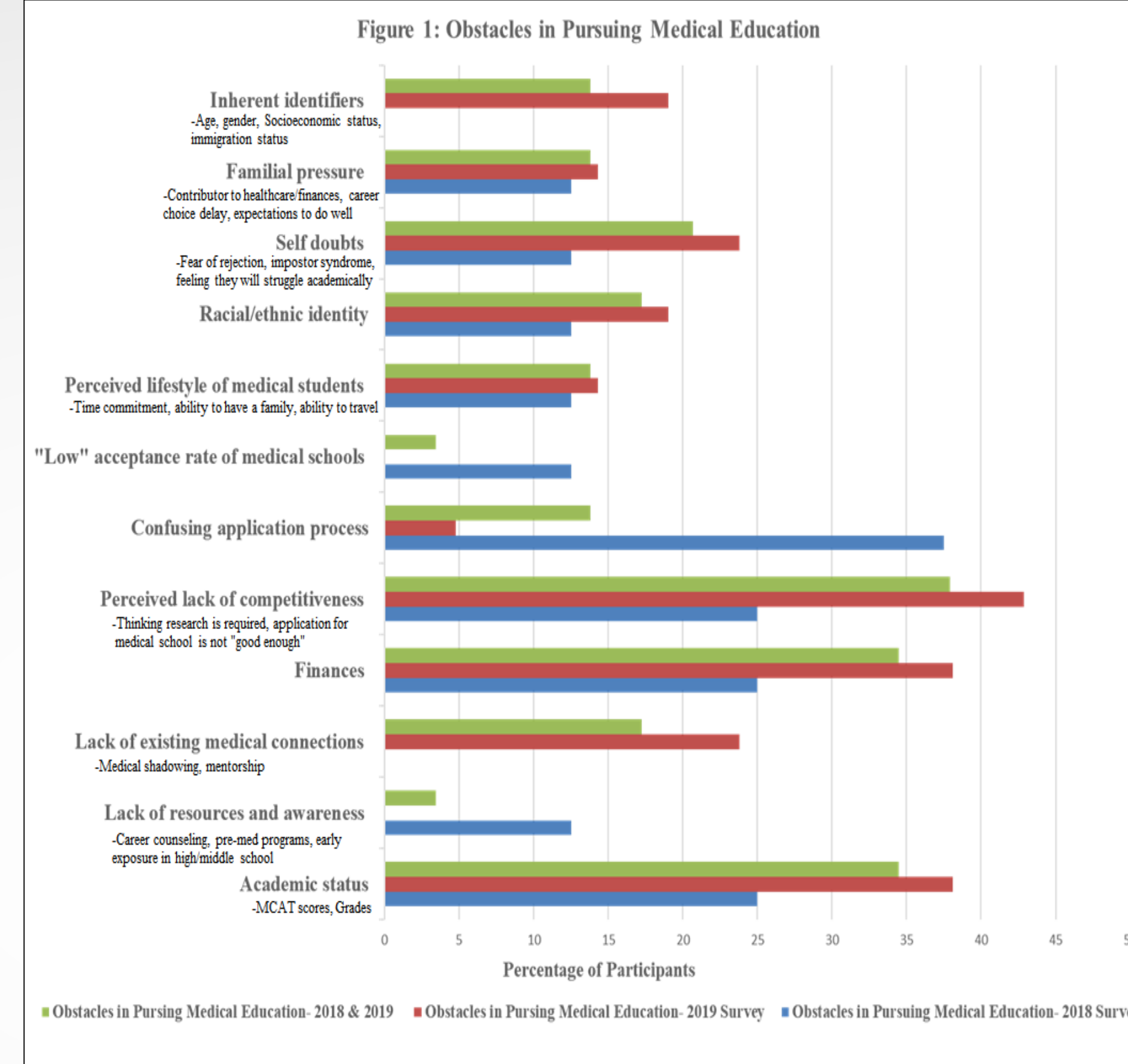

Figure 2. Perceived limitations in being a professional in the medical community secondary to identity: race, ethnicity, religion, culture, gender, personality, etc.

Results

Figure 1: Obstacles in Pursuing Medical Education

Table 1. 2018 vs. 2019 Pre-Post Survey Results

	How comfortable are you with the complete medical school application process?[A]	What is your current level of understanding of what a physician does?[B]	What is your current level of understanding of the difference between allopathic physicians and osteopathic physicians?[B]	How likely are you to apply to medical school?
P- Value- 2018	0.15	.171	.011	.840
P- Value- 2019	<.001	<.001	<.001	.960
P- Value- 2018 vs 2019	.685	.512	.026	.003
Median- 2018 Pre	3	3	3	--
Median- 2018 Post	4	4	4	--
Median- 2019 Pre	3	3	3	--
Median- 2019 Post	4	4	5	--

A= Likert Scale Used. 1= no understanding, 2= some understanding, 3= moderate understanding, 4= great understanding, 5= complete understanding.
B= Likert Scale Used. 1= not familiar, 2= somewhat familiar, 3= moderately familiar, 4= very familiar, 5= completely familiar

Discussion and Conclusion

From our data collection of perceived barriers, it appears that perceived competitiveness, academic status, and finances are the highest cited among the participants. While our program cannot influence the academic status or finances of our participants, we were able to address their perceived competitiveness through workshops. Our program was successfully able to address the confusing application process as seen by the statistically significant outcomes in Table 1 between 2018 and 2019. Additionally, the DREAM program was able to maintain status quo between 2018 and 2019 with improving participants' understanding of the application process and what it looks like to be a physician.

Figure 2 demonstrates self-reported parts of the participants' identities that they feel conflict with their ideas of medical professionalism. The three most cited sources are ethnic identity, cultural components, and being female. With this knowledge, we aim to incorporate workshops that will enable participants URM further self-identity exploration and help them realizes their inherent identities are an advantage rather than a disadvantage.

Possibility of response bias and limitations in sample size are acknowledged. Future directions for this project include an additional one-year follow-up survey to all DREAM participants to assess their progression in the medical school application progress, or to see if they are still pursuing a career in medicine at all, as well as to reassess their perceived barriers.

References

1. *American Medical Student Association.* (2017). Enriching Medicine Through Diversity. Retrieved June 18, 2018, from https://www.amsa.org/about/mission-aspirations/diversity/
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