

Touro Scholar

Touro College of Osteopathic Medicine (New York) Publications and Research

Touro College of Osteopathic Medicine (New York)

1-24-2024

Diversity in Osteopathic Medical School Admissions and the COMPASS Program: An Update

Nadege J. Dady Touro College of Osteopathic Medicine, nadege.dady@touro.edu

Steven M. Toplan *Touro College of Osteopathic Medicine*, steven.toplan@touro.edu

Jeffrey R. Gardere *Touro College of Osteopathic Medicine*, jeffrey.gardere@touro.edu

Robin Moore

Lorreen Agandi

See next page for additional authors

Follow this and additional works at: https://touroscholar.touro.edu/tcomny_pubs

🔮 Part of the Higher Education Commons, and the Medicine and Health Sciences Commons

Recommended Citation

Dady, N. J., Toplan, S. M., Gardere, J. R., Moore, R., Agandi, L., Fergie Ulysse, U., Aminpour, A., Gelvin, M., Akinsanya, J., & Steier, K. J. (2024). Diversity in Osteopathic Medical School Admissions and the COMPASS Program: An Update. *Journal of Osteopathic Medicine*. https://doi.org/10.1515/jom-2023-0114

This Commentary is brought to you for free and open access by the Touro College of Osteopathic Medicine (New York) at Touro Scholar. It has been accepted for inclusion in Touro College of Osteopathic Medicine (New York) Publications and Research by an authorized administrator of Touro Scholar. For more information, please contact touro.scholar@touro.edu.

Authors

Nadege J. Dady, Steven M. Toplan, Jeffrey R. Gardere, Robin Moore, Lorreen Agandi, Ulcha Fergie Ulysse, Aida Aminpour, McKensie Gelvin, Jemima Akinsanya, and Kenneth J. Steier

Medical Education

Commentary

Nadege Dady*, EdD, Steven Toplan, MS, Jeffrey Gardere, PhD, Robin Moore, DO, Lorreen Agandi, MS, Ulcha Fergie Ulysse, MS, Aida Aminpour, BA, McKensie Gelvin, BS, Jemima Akinsanya, DO and Kenneth Steier, DO, MBA, MPH, MHA, MGH

Diversity in osteopathic medical school admissions and the COMPASS program: an update

https://doi.org/10.1515/jom-2023-0114 Received May 9, 2023; accepted December 7, 2023; published online January 24, 2024

Abstract: In the United States, the 40 colleges of osteopathic medicine and 157 schools of allopathic medicine face challenges in recruiting candidates who are underrepresented in medicine (URiM), and gaps in racial disparity appear to be widening. In this commentary, the authors provide an analysis of the data collected from 8 years of conducting a URiM recruitment and welcoming social events. The event is sponsored by a student special interest group called Creating Osteopathic Minority Physicians Who Achieve Scholastic Success (COMPASS) at the Touro College of Osteopathic Medicine - New York (TouroCOM-NY). The results of the 8-year data analysis supports the conclusion that the COM-PASS program has benefited the school environment through increased diversity.

Keywords: diversity; inclusion; medical school; recruitment; underrepresented in medicine

The term "underrepresented minorities" has been reframed by the Association of American Medical Colleges (AAMC) as underrepresented in medicine (URiM), which defines representation in medicine relative to representation in the US population. Medical schools are challenged by efforts to recruit qualified candidates who are URiM [1]. As of 2019,

Black or African American applicants had lower medical school acceptance rates than their peer groups [2]. There is a gap among the percentages of graduating medical students by race and ethnicity in that White (54.5%) and Asian (21.6%) candidates represent the largest proportion of medical school graduates [3]. Medical school graduates in 2019 were 6.2 % Black or African American and 5.3 % Hispanic or Latino [3]. Historical data presented by the AAMC indicate that these gaps are unchanged and demonstrates a decline in Black men applying to and attending medical school since 1978; specifically, the number of Black male applicants to medical school dropped to 1,337 in 2014 from 1,410 in 1978 [4]. Recognizing the level of complexity around recruitment and retention, the American Association of Colleges of Osteopathic Medicine (AACOM) and others have developed key communications and strategies to help colleges, recruiters, administrators, and faculty prioritize diversity through effective collaboration and accurate data collection [5, 6].

The competition to recruit qualified candidates traditionally URiM (i.e., minority students) remains a challenge for both the 40 [7] colleges of osteopathic medicine [8] and 157 [9] schools of allopathic medicine [10] in the United States, as reflected by the data cited from both AACOM [5] and the AAMC [6]. Traditional objective measures for assessing student performance include the Medical College Admission Test (MCAT) score, grade point average (GPA), and socioeconomic factors such as family income and parental education, may also influence a student's academic progress and success in higher education regardless of race or ethnicity [6]. There is known predictive relatability between osteopathic medical school performance and **Comprehensive Osteopathic Medical Licensing Examination** (COMLEX) USA Level 1 and Level 2-Cognitive Evaluation (Level 2-CE) results [11] and a correlation between the MCAT and United States Medical Licensing Examination (USMLE) 1 score [12]. Family income is also strongly correlated with success in higher education, as measured by standardized test scores and GPA [13].

^{*}Corresponding author: Nadege Dady, EdD, Dean of Student Affairs, Touro College of Osteopathic Medicine, 235 W 125th Street, New York, NY 10027-4408, USA, E-mail: nadege.dady@touro.edu

Steven Toplan, MS, Jeffrey Gardere, PhD, Lorreen Agandi, MS, Ulcha Fergie Ulysse, MS and Kenneth Steier, DO, MBA, MPH, MHA, MGH, Touro College of Osteopathic Medicine - New York, New York, NY, USA

Robin Moore, DO, Rowan-Virtua School of Osteopathic Medicine, Stratford, NI. USA

Aida Aminpour, BA and McKensie Gelvin, BS, Touro University School of Health Sciences, New York, NY, USA

Jemima Akinsanya, DO, Neuroimmunology Clinic, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, USA

The mission of Touro College of Osteopathic Medicine – New York (TouroCOM-NY) is to train osteopathic physicians, with an emphasis on practicing medicine in underserved communities and increasing the number of URIM students attending medical school. The TouroCOM-NY campus opened in 2007, and the first graduating class completed their education in 2011. In this inaugural class, 19 of 135 students (14.1 %) were URIM. Recognizing a need for student participation in the recruitment of minority students, a TouroCOM-NY alumna created the student interest group Creating Osteopathic Minority Physicians Who Achieve Scholastic Success (COMPASS). This article discusses how COMPASS supports TouroCOM-NY's recruitment efforts to increase federally designated URIM [14] candidates and can serve as a model for other colleges.

The COMPASS program

In a previous article, we reported the formation of the COMPASS program by an alumnus [15]. Jemima Akinsanya, DO, was a first-year medical student in 2013 who thought that starting a program to help future minority students might also help those already enrolled at TouroCOM-NY by providing a stronger support system. With this in mind, the seeds of COMPASS were planted. Between the years 2015 and 2016, COMPASS began an energetic peer-to-peer program with specific goals and strategies. Working collaboratively with the Dean of Student Affairs office, the COMPASS welcoming program brought minority student prospect candidates from the application cycle together with current TouroCOM-NY URIM medical students. This updated communication presents the impact of the COMPASS program on admissions and enrollment between the years 2015 and 2022.

Utilizing the American Association of Colleges of Osteopathic Medicine's Application Service (AACOMAS), an invitation was sent to students who self-identified as URiM applicants to the COM on behalf of the COMPASS program. Prior to the COVID-19 global pandemic [16], COMPASS student leaders organized an agenda for a single in-person welcoming program specifically for invited applicants. The Office of Student Affairs provided funding for refreshments through a specific budgeted allocation for student activities. The program was student-led and did not include administration or admissions officers. Student leaders were instructed to refer specific questions related to a candidate's academic/admissions standing to admissions officers, which kept the focus of events on providing a social, supportive, and welcoming atmosphere. TouroCOM-NY admissions materials were also distributed; these included information about admissions requirements, processes,

and procedures, and the principles of osteopathic manipulative medicine (OMM), as well as TouroCOM-NY branded admissions promotional materials (e.g., t-shirts, pens, bags, etc.) typically distributed during recruitment. COMPASS leaders also invited other TouroCOM-NY student leaders representing the Student National Medical Association, Latino Student Medical Association, and the Student Diversity Committee to participate in the welcoming event on campus. Again, the event focused primarily on answering questions about student life and providing applicants with direct exposure to URiM students currently attending TouroCOM-NY. The rationale for this approach was that by fostering a positive social atmosphere with current minority medical students with whom they could relate, prospective minority students could envision themselves as potential members of TouroCOM-NY. From an admissions perspective, this was an important strategy in reassuring URiM students that they could "accept" us.

Table 1 demonstrates the organizational structure of the COMPASS welcoming event. Beginning with the year 2015, invitations were sent via the WebAdmit application system. Before the year 2019, an average of 23 candidates would attend the in-person event each year, typically candidates already living in the New York, New Jersey, and Connecticut tristate area. Between 2020 and 2022, we saw a significant increase in the total number of participants due to a conversion to the virtual format and the social impact of the COVID-19 pandemic [16]. Notably, the virtual format facilitated participation from candidates outside of the New York/New Jersey area.

A global pandemic, student engagement, and technology

The COVID-19 pandemic [16] altered the lives of students across the country [17]. Students were forced to quickly adapt to utilizing remote instruction. The use of remote instruction provided students who resided in a remote or underserved area the opportunity to attend lectures and classes from any site. Through remote instruction and the use of technology programs like Zoom [17, 18], students were not required to travel to class and could complete their course work in any location [17]. Not only was there an increase in accessibility to completing schoolwork, but also the aspect of students being closer to support systems was significant. The ability for increased accessibility to educational materials aided in more students to manage their academics remotely. The pandemic not only presented as a difficult time for students, but also created a need to stay on

COMPASS invitation sent	AACOMAS invitations sent ^a	Total URiM applicant RSVPs	Total URiM applicant attendees	COMPASS event date
9/16/2015	1,186	30 (2.5 %)	25 (2.1 %)	10/1/2015
10/5/2016	724	24 (3.3 %)	21 (2.9 %)	11/2/2016
10/2/2017	722	34 (4.7 %)	24 (3.3 %)	10/25/2017
9/18/2018	775	42 (5.4 %)	24 (3.1 %)	10/18/2018
9/17/2019	742	37 (5.0 %)	23 (3.1 %)	10/10/2019
9/16/2020 ^b	1,241	228 (1.8 %)	81 (6.5 %)	10/15/2020
10/5/2021	653	170 (26.0 %)	76 (11.6 %)	11/10/2021
10/7/2022 + 11/28/2022	960	240 (25 %)	98 (10.2 %)	10/18/2022 + 12/1/2022
Total	7,003	805 (11.5 %)	372 (5.3 %)	

Table 1: TouroCOM COMPASS student welcoming event.

^aTouroCOM accepts applications through March of the matriculating year. Therefore, these numbers reflect URiM applicants through the time of the invitation, not the entire application cycle. ^bDue to the COVID-19 pandemic, programming switched to a virtual format and has remained virtual. AACOMAS, American Association of Colleges of Osteopathic Medicine's Application Service; COMPASS, Creating Osteopathic Minority Physicians Who Achieve Scholastic Success; TouroCOM, Touro College of Osteopathic Medicine; URiM, underrepresented in medicine.

top of coursework while also keeping connected to critical family and friend support necessary for success [17]. The flexibility provided through remote instruction presented the opportunity for students to effectively and efficiently balance personal and professional obligations. A more fluid system gave students the freedom to engage in their classes and lectures from anywhere in the world [17]. This fluidity crossed over into participation in the COMPASS program as well, facilitating increased participation and broadening the discussion to include participants from across the United States. As such, Table 2 demonstrates the exact increase in URIM group participation in the COMPASS program.

The COMPASS program is beneficial to prospective candidates because it exposes them to the TouroCOM-NY experience, with a special focus on the Harlem campus. Prospective students are given the chance to lead breakout rooms by asking any question about TouroCOM-NY, being a medical student, and living in Harlem. This was done to break the imaginary wall that can exist between premedical and medical students. Chosen osteopathic medical student I (OMS-I) and II (OMS-II) students were given the opportunity to serve as virtual moderators for the prospective students. After preliminary introductions, approximately 10–12 students were assigned to one moderator (a current OMS student of TouroCOM-NY); the purpose of this was to establish an environment of trust and transparency.

The contribution of the URIM TouroCOM-NY student leader is that they have a unique perspective to share. They can relate to the unique challenges faced pursuing a medical education. The breakout rooms provided candidates with varying perspectives of the TouroCOM-NY experience, based on the moderator's view. Moderators answered queries about the grading system, interactions with peers and faculty, school-life balance, housing and commuting, and the quality of the overall experience of the current medical students. Attendees were left with an honest insight into the rigors of medical school, an understanding of the TouroCOM-NY experience, and a complete sense of what is important to them as applicants entering the realm of medicine.

Table 2:	TouroCOM	COMPASS	partici	pation	information	by	gender/race ethnicity.

	COMPASS program participation by gender/race ethnicity								
Year	COMPASS attendance		Gende	r		Race/	ethnicity		
		Male	Female	Declined to state	African American	Hispanic	Multiethnic ^b	Declined to state	
2016	21	6 (28.6 %)	15 (71.4 %)	0 (0 %)	10 (47.6 %)	1 (4.8 %)	2 (9.5 %)	0 (0 %)	
2017	24	8 (33.3 %)	16 (66.7 %)	0 (0 %)	8 (33.3 %)	6 (25 %)	18 (75 %)	0 (0 %)	
2018	24	8 (33.3 %)	16 (66.7 %)	0 (0 %)	11 (45.8 %)	4 (16.7 %)	1 (4.2 %)	0 (0 %)	
2019	23	5 (21.7 %)	18 (78.3 %)	0 (0 %)	12 (52.1 %)	3 (13.0 %)	3 (13.0 %)	0 (0 %)	
2020 ^a	81	20 (24.7 %)	61 (75.3 %)	0 (0 %)	41 (50.6 %)	11 (13.6 %)	17 (21.0 %)	0 (0 %)	
2021	76	25 (32.9 %)	49 (64.5 %)	1 (1.3 %)	44 (57.9 %)	9 (11.8 %)	17 (22.4 %)	0 (0 %)	
2022	98	20 (20.4 %)	78 (79.6 %)	0 (0 %)	48 (49.0 %)	0 (0 %)	0 (0 %)	0 (0 %)	

^aDue to the COVID-19 pandemic, programming switched to a virtual format and has remained virtual. ^bMultiethnic includes at least one URiM race or ethnicity. COMPASS, Creating Osteopathic Minority Physicians Who Achieve Scholastic Success; TouroCOM, Touro College of Osteopathic Medicine; URiM, underrepresented in medicine.

Feedback from prospective candidates who attended the program indicated feelings of ease about the program, adding that the program facilitated networking with their peers without the presence of faculty or staff and void of the pressure associated with a formal interview process. Additional feedback from prospective candidates highlighted candidates who chose to enroll after engaging with the COMPASS program. They also articulated a lack of formal guidance from their academic communities about how to successfully matriculate into medical school.

Tables 3 and 4 demonstrate COMPASS participation in relation to being offered a Doctor of Osteopathic Medicine (DO) interview, enrollment, and graduation status at the osteopathic medical school. The issue of matriculation in medical school is a complex, multifactorial process. The addition of the COMPASS program has not only added a

Table 3: TouroCOM COMPASS participation and the DO interview.

COMPASS participation and DO interview							
Year	COMPASS attendance	Offered DO interview	Recommended to MS program after DO interview	Offered DO acceptance			
2016	21	7 (33.3 %)	3 (14.3 %)	3 (14.3 %)			
2017	24	24 (100 %)	0 (0.0 %)	24 (100 %)			
2018	24	11 (45.8 %)	3 (12.5 %)	5 (20.8 %)			
2019	23	10 (43.5 %)	3 (13.0 %)	6 (26.1 %)			
2020 ^a	81	42 (51.8 %)	1 (1.2 %)	28 (34.6 %)			
2021	76	45 (59.2 %)	4 (5.3 %)	26 (34.2 %)			
2022	98	64 (65.3 %)	6 (6.1 %)	32 (32.7 %)			

^aDue to the COVID-19 pandemic, programming switched to a virtual format and has remained virtual. COMPASS, Creating Osteopathic Minority Physicians Who Achieve Scholastic Success; DO, Doctor of Osteopathic Medicine; MS, Master of Science; TouroCOM, Touro College of Osteopathic Medicine.

Table 4: TouroCOM COMPASS participation and DO enrollment.

sense of belonging on campus but also expanded the opportunities for mentorship.

All medical schools have their own criteria for selecting which students are interviewed. At TouroCOM-NY, a primary filter is implemented that selects candidates for a secondary application invitation based on a minimum MCAT score (498) and GPA criteria (3.0). If a candidate submits the secondary application, the candidate is considered for an interview. Annually, TouroCOM-NY receives approximately 3,500 secondary applications, and each campus interviews approximately 525 candidates.

In the year 2017, all of the COMPASS attendees met our criteria to be invited for an interview. If a candidate was not qualified for an interview, they received email communication about alternate pathways into medical school or other healthcare options. One of the options offered as an alternate pathway into medical school is applying for the Master of Science (MS) in Biological Sciences program. Students who successfully completed the one-year MS program at TouroCOM-NY are offered promotion into the DO program, upon meeting promotion criteria. The details of the MS to DO program are outlined in Table 5.

To determine whether there was an increasing trend in enrollment of URiM students over time in Table 4, the Man-Kendall test of trend was applied to enrolled students and the percentage of attendees who enrolled. The results for both columns for n=6 was s=3, alpha=0.36. Although numerically there appears to be an upward trend, statistically the trend was not significant.

Mentorship

Mentoring URiM students is of paramount importance because it can support successful matriculation, graduation,

COMPASS participation and DO enrollment							
Academic year	COMPASS attendance	Declined offer of DO acceptance	Not offered DO interview or acceptance	Enrolled	Graduated (based on those enrolled)		
2016	21	2 (9.5 %)	14 (66.7 %)	1 (4.8 %)	1 (100 %)		
2017	24	18 (75.0 %)	0 (0.0 %)	6 (25.0 %)	5 (83.3 %)		
2018	24	1 (4.2 %)	13 (54.2 %)	4 (16.7 %)	4 (100 %)		
2019	23	3 (13.0 %)	14 (60.9 %)	3 (13.0 %)	TBD		
2020 ^a	81	17 (21.0 %)	39 (48.1 %)	11 (13.6 %)	TBD		
2021	76	17 (22.4 %)	31 (40.8 %)	9 (11.8 %)	TBD		
2022	98	23 (23.5 %)	65 (66.3 %)	10 (10.2 %)	TBD		

^aDue to the COVID-19 pandemic. programming switched to a virtual format and has remained virtual. COMPASS, Creating Osteopathic Minority Physicians Who Achieve Scholastic Success; DO, Doctor of Osteopathic Medicine; TBD, to be determined; TouroCOM, Touro College of Osteopathic Medicine.

Matriculation year	Graduation year	Total class size	Total URiM matriculation	Total URiM/ MS2DO ^a matriculation	Total URiM graduated (based on URiM number enrolled)
2007	2011	135	19 (14.1 %)	-	12 (63.2 %)
2008	2012	135	9 (6.7 %)	-	8 (88.9 %)
2009	2013	135	20 (14.8 %)	5 (3.7 %)	15 (75.0 %)
2010	2014	135	18 (13.3 %)	7 (5.2 %)	15 (83.3 %)
2011	2015	135	24 (17.8 %)	14 (10.4 %)	23 (95.8 %) ^b
2012	2016	136	19 (14.0 %)	18 (13.2 %)	17 (94.4 %)
2013	2017	135	27 (20.0 %)	15 (11.1 %)	22 (81.5 %)
2014	2018	134	24 (17.9 %)	15 (11.2 %)	23 (95.8 %)
2015	2019	135	13 (9.6 %)	10 (7.4 %)	12 (92.3 %)
2016	2020	154	23 (14.9 %)	11 (7.1 %)	21 (91.3 %)
2017	2021	113	24 (21.2 %)	17 (15.0 %)	21 (87.5 %)
2018	2022	135	38 (28.1 %)	22 (16.3 %)	TBD ^c
2019	2023	135	31 (23.0 %)	13 (9.6 %)	TBD
2020	2024	135	35 (25.9 %)	15 (11.1 %)	TBD
2021	2025	135	43 (31.8 %)	12 (8.9 %)	TBD
2022	2026	135	26 (19.3 %)	7 (5.2 %)	TBD

Table 5: Matriculation and graduation rates of URiM students for TouroCOM-NY (Harlem Campus), 2011–2023.

^aMS2DO=students who successfully completed the one-year MS program at TouroCOM and were promoted into the DO program, upon meeting promotion criteria. ^bIncludes student(s) who have deferred from a previous year. ^cThe data set for graduation year 2022 is incomplete. TouroCOM-NY, Touro College of Osteopathic Medicine – New York; MS2DO, Master of Science to Doctor of Osteopathic Medicine; TBD, to be determined; URiM, underrepresented in medicine.

and contentment with one's chosen field of medicine. It can also add diversity to the medical workplace that is sorely lacking in that regard. According to the AAMC, only 5.7 % of physicians in the United States are African American and/or Black [19]. Furthermore, 51 % of first-generation undergraduate students are URIM [20]. After reviewing these numbers, one quickly recognizes that URIM students may be disadvantaged when seeking social support and networking groups within their families and/or communities who would be equipped to guide and advise them.

As it pertains to the impact that effective mentorship can have on academic achievement, at-risk students who participate in co-curricular activities and feel socially integrated drop out of school less frequently [21]. Students who have trusting relationships with mentors are better able to take advantage of critical feedback and other opportunities to learn [22, 23]. Medical students are happier and academically stronger when they feel that they are not alone and are supported. Therefore, mentors can play an important role in assisting students to recognize their imposter syndrome and provide empowerment strategies on managing and overcoming them [24].

Belonging

Belonging uncertainty theory provides needed context through heightened levels of the imposter syndrome when a

student subconsciously forms the impression that they are not meant to be there [25]. In addition, smaller numbers of URiM student representation on medical school campuses further exacerbates feelings of imposter syndrome as they wrestle with general feelings of not belonging. For example, Black medical students at predominantly White institutions "may experience greater everyday discrimination relative to their Historically Black Colleges and University (HBCU) peers that leads to reduced perceptions of their ability to succeed within medical school [26]."

It should be noted that many students, and adults experience imposter syndrome, especially those who are high achieving, perfectionistic, and have high expectations and standards that are difficult if not impossible to achieve [27]. In addition to some of these personality traits or tendencies, implicit and explicit bias also contributes to imposter syndrome [28]. URiM students are at risk for imposter syndrome for all the same reasons, and are at greater risk because they chronically encounter explicit, implicit, and institutional racism both within and beyond the institutions they attend [29]. Because of these factors – no matter how confident, intelligent, and successful they may be in school or in life – they must constantly wrestle with imposter syndrome. These factors further affect their ability to form the necessary relationships with other students, faculty, and administration in medical school the very relationships that are critical to success [21]. Mentors play the critical role of modeling and framing for students that their own imposter syndrome can be managed and that they can consistently achieve success. Through mentorship, students will realize that imposter syndrome is normal and does not exclude one from success. Further, mentorship can act as a motivator for URiM students to overcome their struggles and celebrate their triumphs.

Discussion

The dearth of Black and Latino physicians continues not only to negatively affect diversity in the field of medicine, but also to contribute to health disparities in minority populations [30]. To increase the number of URiM physicians, initiatives in recruiting diverse and minority student cohorts are sorely needed as part of the admissions process in our medical schools and postbaccalaureate medical programs [31]. TouroCOM-NY has successfully integrated the COMPASS program into its recruitment and admission programs. COMPASS works to make sure applicants feel that they belong and can see themselves in medical school. Although COMPASS in its essence is a social program associated with the admissions process, many COMPASS student leader volunteers become peer mentors the following year to help fellow students appropriately adjust to medical school matriculation.

Lessons learned

The most valuable lesson learned is that it is not enough to simply recruit diverse candidates – the environment on campus must also mirror that diversity and provide opportunities to connect with faculty who can provide necessary mentorship. Although medical school leadership desires to increase the diversity of the student body [31], the best strategies for successfully recruiting and retaining URiM candidates must be both intentional and thoughtful [31].

The importance of URiM faculty representation

The path to medical school might expose URiM students to systemic racism and microaggressions [32]. Devoid of strategies to manage these situations, they could lead to feelings of powerless, anxiousness, and depression [33]. This state of powerless is further enhanced when coupled with the intense pressure, curriculum, and culture of medical school. Mentors can play a critical role in modeling strategies for handling subtle microaggressions professionally [34] while also empowering URiM students and creating a sense of control, confidence, and security.

Empowering URiM medical student leaders

While the collaboration between the COMPASS program and the admissions office introduces a positive student effort within the recruitment process, it is also important for enrolled students to translate this leadership experience to their curriculum vitae. Participating in this program provides the URiM medical student a unique opportunity to demonstrate leadership skills and enhance their own sense of belonging by reconnecting to purpose and a broader sense of community. This is accomplished through their guidance, support, and encouragement of the URiM applicant candidate, which transforms feelings of not belonging to feelings of being a valued member of the applicant pool. Having a program like COMPASS also demonstrates to both prospective candidates and enrolled students how committed the institution is to their diversity efforts [35].

The importance of ongoing student support on campus

The COMPASS program assists with providing guidance and support to URiM candidates during the application phase. Once enrolled, however, it is just as important for student support to continue, as consistent and positive engagement with students cultivates their success. After matriculation at TouroCOM-NY, students can access continued support through the Director of Diversity, the Student Government Association's Diversity Task Force, and other student organizations such as the Student National Medical Association (SNMA), Latino Medical Student Association (LMSA), and Muslim Medical Student Organization (MMSA), to name a few that lead student diversity and inclusion efforts on campus. In addition to peer-to-peer support, the college has also invested in other key types of support that assists students' success such as a Learning Specialist, a Social Worker, a confidential and free 24-7 student assistance program, and the consistent promotion of wellness activities around campus.

An additional pathway to TouroCOM-NY

While the COMPASS peer welcoming program is an attractive draw for candidates in the application cycle, it is not the only method by which minority students matriculate into TouroCOM-NY. The school's Master's Program in Biomedical Sciences is a pathway program into our medical school and contributes approximately 20 % of our incoming class each year (Table 5). The program is designed to offer students the opportunity to demonstrate that they can succeed with advanced-level science work. Students who earn a 3.450 GPA or better are offered guaranteed admission into TouroCOM-NY.

Conclusions

Successful recruitment of URiM applicants requires a variety of approaches, such as ensuring that prospective medical school students have opportunities to interact with current URiM students, faculty, and administration who reflect diversity. Pathway programs also serve as a way to enhance the opportunities for prospective medical students. These programs help students recognize their academic capacity and provide the college with an assessment of their potential for success. With over 40 [7] DO schools and 157 [9] MD schools in the United States, competition for qualified URiM candidates has only increased the pressure to be attractive to medical school candidates.

The strength of a student-led program like COMPASS is in facilitating a welcoming environment to support applicants, allowing them to socialize with URiM medical students. Although social in nature, these activities also provide a greater understanding of the medical school's culture and student life on campus. The most noticeable impact of the COMPASS program is on the URiM candidate's increased comfortability with the admissions process as they elect to confirm their secondary invitation and participate in our interview process.

As a result of COMPASS's efforts, along with the contribution of medical school mentorship after matriculation, URiM faculty representation, the MS-to-DO pathway program, and ongoing student support through student organizations, TouroCOM-NY has facilitated a winning strategy for guiding students on their path to academic success. This winning strategy also incorporates the important support provided by the Learning Specialist and Social Worker as well as a 24-7 confidential and free counseling program offered by the college.

We recommend that all colleges of osteopathic medicine explore their current efforts to recruit prospective URiM students and consider additional efforts that would be effective in their local community. Research ethics: Not applicable.

Informed consent: Not applicable.

Author contributions: The authors have accepted responsibility for the entire content of this manuscript and approved its submission.

Competing interests: The authors states no conflict of interest.

Research funding: None declared.

Data availability: The raw data can be obtained on request from the corresponding author.

References

- Clay WA, Jackson DH, Harris KA. Does the AAMC's definition of "underrepresented in medicine" promote justice and inclusivity? AMA J Ethics 2021;23:E960–4.
- Association of American Medical Colleges. Applicants, first-time applicants, acceptees, and matriculants to U.S. Medical schools by race/ ethnicity, 2016–2020, website AAMC.org. https://www.aamc.org/system/ files/2019-10/2019_FACTS_Table_A-12.pdf [Accessed August 2020].
- Association of American Medical Colleges. Total U.S. Medical school graduates by race/ethnicity (Alone) and sex, 2014–2015 through 2018– 2019, website AAMC.org. https://www.aamc.org/system/files/2019-11/ 2019_FACTS_Table_B-4.pdf [Accessed Sept 2020].
- Association of American Medical Colleges. Altering the course: black males in medicine, website AAMC.org. https://www.aamc.org/newsinsights/aamc-report-shows-decline-black-males-medicine [Accessed Sept 2020].
- Association of American Colleges of Osteopathic Medicine. Data on the current state of diversity in osteopathic medical education 2016–2017. website: AACOM.org. https://www.aacom.org/become-a-doctor/ diversity/diversity-data [Accessed Sept 2019].
- Association of American Medical Colleges. Diversity in medical education AAMC facts & figures 2016. website: aamcdiversityfactsandfigures2016.org. http://www. aamcdiversityfactsandfigures2016.org/ [Accessed Sept 2019].
- Association of American Medical Colleges. US college of osteopathic medicine. website: AACOM.org. https://www.aacom.org/become-adoctor/prepare-for-medical-school/us-colleges-of-osteopathicmedicine#:~:text=There%20are%20currently%2040%20accredited, teaching%20locations%20in%2035%20states [Accessed Aug 2023].
- Association of American Colleges of Osteopathic Medicine, U.S. Colleges of osteopathic medicine. website: AACOM.org. https://www. aacom.org/u.s.-colleges-version-2?utm_expid=.
 5LhsqeCXTqaabXxLxyVEUA.3&utm_referrer=https%3A%2F%2Fwww. bing.com%2F [Accessed Sept 2020].
- Association of American Medical Colleges, Enrollment up at US medical schools, website: AAMC.org, https://www.aamc.org/news/pressreleases/enrollment-us-medical-schools#:~:text=Its%20members% 20are%20all%20157,more%20than%2070%20academic%20societies [Accessed Aug 2023].
- Association of American Medical Colleges, Medical school enrollments grow, but residency slots haven't kept pace. website: AAMC.org. https://www.aamc.org/news-insights/medical-school-enrollmentsgrow-residency-slots-haven-t-kept-pace [Accessed Sept 2020].

- Dixon D. Prediction of osteopathic medical school performance on the basis of MCAT score, GPA, sex, undergraduate major, and undergraduate institution. J Am Osteopath Assoc 2012;112:175–81.
- Casey PM, Palmer BA, Thompson GB, Laack TA, Thomas MR, Hartz MF, et al. Predictors of medical school clerkship performance: a multispecialty longitudinal analysis of standardized examination scores and clinical assessments. BMC Med Educ 2016;16:128.
- Cooper RA. Impact of trends in primary, secondary, and postsecondary education on applications to medical school. II: considerations of race, ethnicity, and income. Acad Med 2003;78:864–76.
- Health Resources and Services Administration, HRSA health workforce glossary. Website: hrsa.gov, https://bhw.hrsa.gov/grants/ resourcecenter/glossary [Accessed 3 Sept 2020].
- Dady N, Mungroo KA, Young T, Akinsanya J, Forstein D. Diversity in osteopathic medical school admissions and the COMPASS program. J Osteopath Med 2021;121:157–61.
- Ciotti M, Ciccozzi M, Terrinoni A, Jiang WC, Wang CB, Bernardini S. The COVID-19 pandemic. Crit Rev Clin Lab Sci 2020;57:365–88.
- 17. Daniel SJ. Education and the COVID-19 pandemic. Prospects 2020;49: 91–6.
- Serhan D. Transitioning from face-to-face to remote learning: students' attitudes and perceptions of using zoom during COVID-19 pandemic. Int J Technol Educ Sci 2020;4:335–42.
- AAMC. What's your specialty? New data show the choices of America's doctors by gender, race, and age. https://www.aamc.org/news/whats-your-specialty-new-data-show-choices-america-s-doctors-genderrace-and-age [Accessed Sept 2023].
- Romero R, Miotto K, Casillas A, Sanford J. Understanding the experiences of first-generation medical students: implications for a diverse physician workforce. Acad Psychiatr 2020;44:467–70.
- 21. Mahoney JL, Cairns RB. Do extracurricular activities protect against early school dropout? Dev Psychol 1997;33:241.
- Caprara GV, Barbaranelli C, Pastorelli C, Bandura A, Zimbardo PG. Prosocial foundations of children's academic achievement. Psychol Sci 2000;11:302–6.
- Brown A, Ellery S, Campione J. Creating zones of proximal development electronically. In: Greeno JG, Goldman S, editors. Thinking practices. New Jersey: Lawrence Erlbaum Associates Publishers; 1998.
- 24. Gresham-Dolby C. Imposter syndrome: an opportunity to positively influence mentees. Curr Pharm Teach Learn 2022;14:130–2.

- Watson LW. How minority students experience college: implications for planning and policy. Herndon, VA: Stylus Publishing, LLC,; 2002.
- Nguemeni Tiako MJ, Wages JE, Perry SP. Black Medical students' sense of belonging and confidence in scholastic abilities at historically black vs predominantly white medical schools: a prospective study.
 J Gen Intern Med 2023;38:122–4.
- 27. Pannhuasen S, Klug K, Rohrmann S. Never good enough: the relation between the imposter phenomenon and multidimensional perfectionism. Curr Psychol 2022;41:888–901.
- Cawcutt K, Clance P, Jain S. Bias, burnout, and imposter phenomenon. The negative impact of under-recognized intersectionality. Women's Health Rep 2021;2:643–7.
- Bernard D, Jones S, Volpe V. Impostor phenomenon and psychological well-being: the moderating roles of John Henry ISM and school racial composition among black college students. J Black Psychol 2020;46: 195–227.
- Smedly BD, Stith AY, Colburn L. Increasing racial and ethnic diversity among physicians: an intervention to address health disparities? National Academies Press; 2001.
- Rumala B, Cason F. Recruitment of underrepresented minority students to medical school: minority medical student organizations, and untapped resource. J Natl Med Assoc 2007;99: 1000–4, 1008–9.
- Espaillat A, Panna DK, Goede DL, Gurka MJ, Novak MA, Zaidi Z. An fexploratory study on microaggressions in medical school: what are they and why should we care? Perspect Med Educ 2019;8: 143–51.
- Milam AJ, Oboh O, Brown Z, Edwards-Johnson J, Terry A, Barajas CB, et al. Symptoms of depression and anxiety among black medical students: the role of peer connectedness and perceived discrimination. J Racial Ethn Health Disparities 2022;9:2180–7.
- South-Paul JE, Campbell KM, Poll-Hunter N, Murrell AJ. Mentoring as a buffer for the syndemic impact of racism and COVID-19 among diverse faculty within academic medicine. Int J Environ Res Publ Health 2021;18: 4921.
- Boatright D, London M, Soriano AJ, Westervelt M, Sanchez S, Gonzalo JD, et al. Strategies and best practices to improve diversity, equity, and inclusion among US graduate medical education programs. JAMA Netw Open 2023;6:e2255110.