

BRIEF REPORT

Race and Gender Disparities Among Leadership in Academic Family Medicine

Mercy Adetoye, MD, MS, and Katherine Gold, MD, MSW, MS

Background: As the United States moves closer to a majority-minority, and a nearly equal male to female population, we should see a similar shift in the composition of leadership in the workplace. Family Medicine, while attempting to close the gaps, continues to fall short in producing women and minority leaders.

Methods: The demographic traits of Association of Departments of Family Medicine (ADFM) chairs in medical education institutions in the United States and Canada were analyzed.

Results: The majority of those in chair positions were male (67%) and White (53%) non-Hispanic. Male chairs have been in positions significantly longer than females (average 9 years and 6 years, respectively). There was also a significant difference between chairs in public versus private schools—public, that is, chairs at public institutions had a much longer average time of 9 years in current position compared with those in private institutions had an average of 5 years. While the comparison was not significant, 46% of those that self-reported as non-White held chair positions at private schools compared with 28% of those that self-reported as White.

Conclusions: Despite the availability of leadership pathways, women and underrepresented minorities continue to be underrepresented in these positions. Future research would benefit from a more extensive evaluation of different characteristics such as disability, gender identity and sexual orientation. (J Am Board Fam Med 2022;00:000–000.)

Keywords: Cultural Competency, Family Medicine, Gender, Leadership, Medical Faculty, Workplace

Background

The United States is undergoing a demographic shift toward more racial and ethnic diversity. The US is changing such that the current minority will become the majority in 2044, with the minority population projected to rise to 56% in 2060, compared with 38% in 2014.¹ As the US population becomes more diverse, it is important that family Medicine physicians mirror those for which they provide care.^{2–4} Research indicates that physician diversity improves patient care.^{5,6} For instance, Black patients elect to undergo more preventative services when cared for by Black physicians than by

White physicians.⁶ Further, primary care physicians from underrepresented minority (URM) groups are more likely to practice in underserved communities.^{7,8}

Physicians in leadership positions play a key role in developing the priorities and tone for future family medicine physicians.⁹ There has been extensive research on racial and gender discrepancies in the medical field as a whole.^{10,11} According to the Association of American Medical Colleges 52.4% of medical school matriculants were women.¹² Obstetrics and gynecology for instance, has the largest proportion of female residents (81%),¹³ but women remained under-represented in administrative leadership roles, only comprising 20.4% of chair positions.¹⁴ Silver et al. studied trends in medical society leadership between 2008 and 2017, showing that men served 82.6% of years versus women serving 17.4% of years.⁴

Leaders influence organizations and specialties thus it is important to understand the demographics of those in leadership positions. In this article we analyze the demographics of those in leadership positions in

This article was externally peer reviewed.

Submitted 24 March 2022; revised 6 May 2022; accepted 11 May 2022; Ahead of Print Publication 1 September 2022; Final Publication XX XXXX 2022.

From Department of Family Medicine, University of Michigan Medical School, Chelsea, MI (MA, KG).

Funding: None.

Conflict of interest: None.

Corresponding author: Mercy Adetoye, MD, MS, University of Michigan Medical School, Department of Family Medicine, 14700 East Old US Highway 12, Chelsea, MI 48118 (E-mail: madetoye@med.umich.edu).

academic family medicine, including age, race, ethnicity, education, employment setting, parents' educational background and tenure in the job.

Methods

The author applied for and received approval from the Association of Departments of Family Medicine (ADFM) to review deidentified membership data. The ADFM membership data were self-reported and limited to chairs in medical education institutions in the United States and Canada. This data included information about the demographics of the chairs, including (but not limited to) gender, race/ethnicity, age, education/training (degrees, training), department/program type (academic/community), and length of time as chair as of April 1, 2019. Associations between degrees with gender, race and parents' education were assessed with Chi-Square tests and the association with age was assessed using 2-sample *t* test.

The same methods were performed to measure associations between minority race/ethnicity and program characteristics. Calculations were performed for White versus other races to evaluate the possible impact of private versus public institution, matriculation size, and osteopathic versus allopathic using Fisher's exact test due to a small sample size. In addition, differences by race (White vs other), gender, parents' education, department setting and matriculation (which compares the average number of years in the role) were assessed using *t* test.

The study was deemed exempt from review by the University of Michigan IRB.

Results

There were data for 152 physicians in the membership lists. Six members did not provide demographic information, and a seventh only provided gender, these data were included in the sample. (Table 1) The average age was 58, 101 (67%) were male, 110 (72%) White and 80 (53%) non-Hispanic. Further, 54 respondents (36%) had 1 or both parents attend college, 83 (55%) had only 1 degree, 142 (93%) held MDs, 135 (89%) attended allopathic schools, and 104 (68%) worked for public institutions. The average time as a chair was 7.9 years.

Males have been in chair positions significantly longer than females (average 9 years and 6 years,

respectively, $P = 0.019$). There was also a significant difference between chairs in public versus private schools, that is, chairs at public institutions had a much longer average time of 9 years in current position while those in private institutions had an average of 5 years.

We also examined whether there was an association between non-White chairs and the type of programs they lead. Of White physicians, 72% lead public institutions compared with 28% leading private institutions, whereas the data show that 54% of non-White participants lead public institutions, and 46% lead private institutions. We compared race (White vs other) with institution ownership (private vs public), medical student matriculation size, and type (osteopathic vs allopathic). While none of the comparisons were significant, 46% of the total group of minorities held chair positions at private schools compared with 28% of Whites.

Discussion

The findings illustrate that despite the increase in women in the field of Family Medicine for instance in 2019 53.7% of residents/fellows, 41% faculty, and 41% practicing physicians, our study showed only 30% of chairs were women.^{15,16} Our findings are similar to studies conducted in other specialties, showing that leadership positions are held predominately by men. A similar study which focused on leadership in obstetrics and gynecology showed women made-up 20.4% of chairs.¹³ In the American Association of Medical Colleges faculty roster showed only 22% of permanent department chairs across all specialties were women.¹⁷

In this study, among those who self-reported 10.5% of chairs were Black, 5.3% were Asian, and 2%, identified as Hispanic; whereas in 2019, among active physicians, 56.2% identified as White, 17.1% as Asian, 5.8% as Hispanic, and 5.0% identified as Black or African American (and 13.7% of active physicians with unknown race).¹⁸ There are ample opportunities for leadership development both within family medicine organizations and outside, particularly for those in academic medicine.¹⁹ Our study is consistent with other studies of leadership demographics particularly with URM (Black, Hispanic, Indigenous) representation lagging. The proportion of URM women who hold faculty

positions was 13% in 2018.¹⁵ Multifactorial reasons discussed in prior literature have been posited for the lack of minorities in leadership positions such as

Table 1. Respondent Characteristics (n = 152)

	n (%)
Gender	
Male	101 (66.5)
Female	45 (29.5)
Unknown	6 (4.0)
Race	
White	110 (72.4)
Black	16 (10.5)
Asian	8 (5.3)
Other	2 (1.3)
Missing	16 (10.5)
Ethnicity	
Hispanic	2 (1.3)
Not Hispanic	80 (52.6)
Unknown	70 (46.0)
Age, mean (SD) (n = 145)	58.2 (8.2)
Age	
31 to 40	3 (2.0)
41 to 50	29 (19.1)
51 to 60	47 (30.9)
61 to 70	62 (40.8)
71+	4 (2.6)
Unknown	7 (4.6)
Family college history	
One or both parental figures went to college	54 (35.5)
Neither parental figure went to college	23 (15.1)
Unknown	75 (49.3)
Number of degrees/credentials	
1	83 (54.6)
2	59 (38.8)
3	6 (4.0)
4	4 (2.6)
Department setting	
Allopathic	135 (88.8)
Osteopathic	5 (3.3)
Regional medical center	9 (5.9)
Other	3 (2.0)
Institution type	
Private	48 (31.6)
Public	104 (68.4)
Students matriculating per year	
<75	19 (12.5)
75–149	60 (39.5)
>149	69 (45.4)
Unknown	4 (2.6)
Years as chair, mean (SD) (n = 112)	7.9 (6.9)

Abbreviation: SD, standard deviation.

racism, diversity pressures, promotion and funding disparities, lack of mentorship in faculty in academic medicine,²⁰ lack of URMs in leadership positions, gender and implicit bias.²¹ Mentorship, family and community influenced URMs career choices.²¹ URMs have also been shown to have fewer publications and are thus less likely to be promoted and retained in academic careers than their White peers.²² There is a need for increased mentorship, coaching and sponsorship to help guide those that are URMs to leadership positions.¹⁹ Age also plays a role in leadership development, in this study the average age of chairs was 58, department chairs are often older and more experienced.

Interestingly, we found that URMs are more likely to work at private institutions. One explanation could be the differences in the process of promotion and tenure at the private institutions. The long and opaque process of acquiring tenure at larger institutions could hinder URMs from acquiring these positions which stunts progress toward leadership positions in academic medicine and limits salary advancement. Further, men hold these positions longer than women.²² The benefit of long terms in these positions is to foster continuity of mission and for those in the leadership positions to see their vision through. This is further confounded because the membership data only noted whether the institution was public or private, it did not specify how long the institution had been open. With newer medical schools having chairs with shorter tenure. Overall, we do see a trend in medicine with medical school classes becoming more diverse, hopefully in the future this increase in representation leads to increased diversity in leadership positions.

One primary limitation of this study is the small sample size and limitation to chair positions. Further, demographic data were limited to variables provided by the data set and research would benefit from a more extensive evaluation of different characteristics such as disability, gender identity and sexual orientation. More work must be done in this area to help balance the demographics of future family medicine physician leaders. This helps to improve recruitment of URMs with the goal of improving health outcomes, reducing disparities and increasing access to health care for minorities individuals.

To see this article online, please go to: <http://jabfm.org/content/00/00/000.full>.

References

1. New Census Bureau report analyzes U.S. population projections [Internet]. Census.gov; 2015 [Accessed 5 May 2022]. Available from: <https://www.census.gov/newsroom/press-releases/2015/cb15-tps16.html>.
2. Nair M, Saxena P. Recent patents on mesenchymal stem cell mediated therapy in inflammatory diseases. *Recent Pat Inflamm Allergy Drug Discov* 2013;7: 105–13.
3. Marrast LM, Zallman L, Woolhandler S, et al. Minority physicians' role in the care of underserved patients: diversifying the physician workforce may be key in addressing health disparities. *JAMA Intern Med* 2014;174:289–91.
4. Silver JK, Ghalib R, Poorman JA, et al. Analysis of gender equity in leadership of physician-focused medical specialty societies 2008–2017. *JAMA Intern Med* 2019;179:433–5.
5. Nair L, Adetayo OA. Cultural competence and ethnic diversity in healthcare. *Plast Reconstr Surg Glob Open* 2019;7:e2219.
6. Alsan MG, Graziani GC. Experimental evidence from Oakland. National Bureau of Economic Research; 2018.
7. Xierali IM, Nivet MA. The racial and ethnic composition and distribution of primary care physicians. *J Health Care Poor Underserved* 2018;29:556–70.
8. Cantor JC, Miles EL, Baker LC, Barker DC. Physician service to the underserved: implications for affirmative action in medical education. *Inquiry* 1996;33:167–80.
9. Dreachslin JL, Hobby F. Racial and ethnic disparities: why diversity leadership matters. *J Healthc Manag* 2008;53:8–13.
10. Pryor AD, Bader A, Talamini M. Minorities in leadership: are we moving the needle? *Surg Endosc* 2019;33:3875–9.
11. Pololi L, Cooper LA, Carr P. Race, disadvantage and faculty experiences in academic medicine. *J Gen Intern Med* 2010;25:1363–9.
12. Fall applicant, matriculant, and enrollment data tables [Internet]. AAMC; 2019 [Accessed 5 May 2022]. Available from: https://www.aamc.org/system/files/2019-12/2019%20AAMC%20Fall%20Applicant%2C%20Matriculant%2C%20and%20Enrollment%20Data%20Tables_0.pdf.
13. Jolliff L, Leadley J, Coakley E, Sloane RA. Women in U.S. academic medicine and science: statistics and benchmarking report 2011–2012. Association of American Medical Colleges; 2012.
14. Hofler L, Hacker MR, Dodge LE, Ricciotti HA. Subspecialty and gender of obstetrics and gynecology faculty in department-based leadership roles. *Obstet Gynecol* 2015;125:471–6.
15. 2018–2019 The state of women in academic medicine: exploring pathways to equity [Internet]. AAMC; 2020 [Accessed 5 May 2022]. Available from: <https://www.aamc.org/data-reports/data/2018-2019-state-women-academic-medicine-exploring-pathways-equity#:~:text=The%20overall%20proportion%20of%20full,%20only%20at%20the%20instructor%20rank>.
16. Active physicians by sex and specialty, 2019 [Internet]. AAMC; 2020 [Accessed 5 May 2022]. Available from: <https://www.aamc.org/data-reports/workforce/interactive-data/active-physicians-sex-and-specialty-2019>.
17. U.S. medical school department chairs by chair type and gender [Internet]. AAMC; 2021 [Accessed 5 May 2022]. Available from: <https://www.aamc.org/data-reports/faculty-institutions/interactive-data/https://www.aamc.org/data-reports/faculty-institutions/interactive-data/us-medical-school-chairs-trends>.
18. Diversity in medicine: facts and figures 2019 [Internet]. AAMC; 2019 [Accessed 5 May 2022]. Available from: <https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019>.
19. Coe C, Piggott C, Davis A, et al. Leadership pathways in academic family medicine: focus on underrepresented minorities and women. *Fam Med* 2020;52:104–11.
20. Rodríguez JE, Campbell KM, Mouratidis RW. Where are the rest of us? Improving representation of minority faculty in academic medicine. *South Med J* 2014;107:739–44.
21. Dixon G, Kind T, Wright J, et al. Factors that influence the choice of academic pediatrics by underrepresented minorities. *Ped* 2019;144.
22. Kaplan SE, Raj A, Carr PL, et al. Race/ethnicity and success in academic medicine: findings from a longitudinal multi-institutional study. *Academic medicine: journal of the Association of American Medical Colleges* 2018;93:616–22.