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SPECIAL CONTRIBUTION

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Overcoming barriers to promotion for women and underrepresented in medicine faculty in academic emergency medicine

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Abstract

Equity in the promotion of women and underrepresented minorities (URiM) is essential for the advancement of academic emergency medicine and the specialty as a whole. Forward-thinking healthcare organizations can best position themselves to optimally care for an increasingly diverse patient population and mentor trainees by championing increased diversity in senior faculty ranks, leadership, and governance roles. This article explores several potential solutions to addressing inequities that hinder the advancement of women and URiM faculty. It is intended to complement the recently approved American College of Emergency Physicians (ACEP) policy statement

aimed at overcoming barriers to promotion of women and URiM faculty in academic emergency medicine. This policy statement was jointly released and supported by the Society for Academic Emergency Medicine (SAEM), American Academy of Emergency Medicine (AAEM), and the Association of Academic Chairs of Emergency Medicine (AACEM).

1 | INTRODUCTION

The American College of Emergency Physicians (ACEP) is committed to championing diverse, equitable, and inclusive workplaces that respect and support emergency physicians in their careers and promotion. Although "diversity" is challenging to define, it includes factors such as gender, race, ethnicity, sexual orientation and identity, physical abilities, religion, nationality, and socioeconomic background. The term underrepresented in medicine (URiM) describes racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population.[1]

Although promotion can be seen as a celebratory moment in the individual career of an academic physician, it also affords an opportunity to be considered for leadership roles that are traditionally only open to faculty of senior rank. Increasing diversity in healthcare leadership and governance is one way that organizations can better address inequities faced by women and underrepresented minorities and improve health care delivery to patients with diverse values, beliefs, and backgrounds.[2] Despite equal gender representation at the medical school level, women currently represent just 43% of full time clinical medical school faculty and 38% of emergencymedicine faculty.[3,4] Thirty-one percent of associate professors in emergency medicine and 19% of full professors are women.[4] URiM faculty face similar challenges. Black, Hispanic, and Native American doctors continue to be underrepresented among emergency medicine resident trainees with no substantial increase in the past 20 years.[5] URiM faculty make up 36% of the US population, but they make up only 10% of full time clinical medical school faculty and 10% of emergency medicine faculty.[6,7] Seven percent of associate professors and less than 6% of full professors in emergency medicine are URiM, making equity in promotion even more critical in this cohort.[8]

Yet, equitable promotion and academic advancement of women and URiM faculty require ongoing efforts and initiatives beyond the recruitment of a diverse workforce. This paper examines barriers to promotion that disproportionately affect women and URiM emergency medicine faculty. We suggest ways that individuals, departments, institutions, and emergency medicine organizations can help women and URiM faculty overcome barriers to academic advancement.

1.1 | Pairing faculty with a faculty advocate

Women and URiM faculty are more likely to achieve promotion if they understand the granular details of the promotion process and have a clear plan for promotion. Open discussion regarding promotion should be initiated early in the recruitment process and revisited at regular intervals after hiring.[9,10] The department and faculty member should be in sync regarding the value, criteria, and expected timelines for promotion. The Academy for Women in Academic Emergency Medicine (AWAEM)'s Toolkit provides resources for departments to assist faculty in meeting promotion metrics.[11]

New faculty should be paired with a faculty advocate, a senior faculty member who can explain the benefits of promotion and help create a roadmap of activities that are valued by appointment, promotion, and tenure (APT) committees. Additionally, new faculty should be encouraged by their faculty advocate to attend faculty development sessions related to the institutional promotions process, which may include topics such as preparation of curriculum vitae, teaching, and service portfolios. Some qualified women and URiM faculty may not seek promotion on their own because of unfounded concerns regarding promotion readiness. One role of the faculty advocate is to allay concerns worthy faculty may have regarding their merits and help them verbalize desires for promotion to department leadership.

1.2 | Cultivating a mentorship network

Mentorship is a critical element of successful recruitment, retention, and academic advancement of women and URiM faculty. It is invaluable to personal and professional development. Mentorship has been associated with higher career satisfaction, increased scholarly productivity, successful promotion, and a desire to mentor others in turn.[12-15] Women and URiM faculty, however, are less likely to have a mentor compared to male or non-URiM colleagues.[14,15] This may be because of the relative underrepresentation of female and URiM faculty in senior positions.[14,15]

Solutions can be based on systems and networks aimed at enhancing or redesigning the existing frameworks of support. At the departmental level, resources should be allocated to fund mentorship and

networking programs focused on URiM and women faculty. On an institutional level, interdepartmental resources and opportunities for mentorship can be centralized. This may include training and leveraging non-URiM and/or male faculty to specifically mentor women and URiM physicians. Prior research has shown that gender concordance between mentor/mentee pairs is not a prerequisite for effective mentorship.[15] Given the aforementioned inequities in academic representation, it is critical to include men and non-URiM faculty as allies and mentors of their women and URiM colleagues. Should women or URiM mentors be needed or desired, department leaders should connect faculty with mentors of similar identity outside of their own department or institution.

A lack of dedicated time for mentors has been cited as a major barrier to the development of mentorship programs.[16] Possible solutions include the exploration of creative mentoring models other than a traditional dyad model (experienced mentor paired with mentee). Functional mentorship pairs a mentor with a mentee for guidance on a specific project.[17] Peer mentorship and facilitated peer mentorship, where peer cohorts are overseen by a senior supervising mentor, allow for reciprocal information sharing and mutual support.[16-18] In group mentorship, a mentor meets with several mentees simultaneously.[18] Telementoring or distance mentorship uses experts from outside institutions or even outside fields (ie, business or government).[13,17] Ultimately, an expanded view of mentorship that uses some combination of the above models may be more beneficial than a traditional single mentor. It is unlikely that a single person can fulfill all the mentorship needs of an individual throughout their career.[19] Departmental leadership can assist faculty members in creating mentorship networks based on individual needs and preferences.[19]

Finally, although mentorship is essential, it is not sufficient for academic advancement and promotion. It is possible to be "over-mentored but under-sponsored."[20] Sponsorship, defined as the public support from a powerful, influential person for the advancement and promotion of an individual with untapped potential, is a critical component of any effort to promote underrepresented populations. Mentors advise; sponsors advocate. They stake their reputation by recommending emerging talent for key, strategic opportunities.[20,21] Sponsorship can be a one-time event, but nonetheless can have significant career impact.[18] Francis Collins, Director of the National Institutes of Health (NIH), recently refused future participation on "manels," or all-male speaking panels, citing the frequent absence of women and URiM panelists in the marquee speaking slots at scientific meetings.[22] One way that influential male speakers can address panel bias is to sponsor women and URiM speakers and recommend them to conference organizers. Institutions can also foster sponsorship by creating incentives and recognizing those who are successful in promoting women and URiM faculty. For example, a department or school of medicine might create an award aimed at mid-career or senior faculty who have developed a reputation for enhancing the careers of multiple women and URiM faculty; the award might include discretionary funds for their own career development.

1.3 | Mitigating the "minority tax" and other disparities

Many URiM faculty note a misalignment between their distinctive experiences and personal goals and the priorities of their institutions. Several key terms and concepts have been used in the literature to describe the basis of these misalignments. One such term is the "distance traveled," a concept that highlights differences (often related to socioeconomic factors) among some URiM faculty in the path to their present position.[23] Examples of this include extended time to earn a college degree or delayed start of medical school because personal financial obligations.[23] Another term, the "gratitude tax" is the perception of indebtedness that URiM faculty may have towards an institution for the opportunity given to become a physician; the debt is paid by remaining at the institution despite promising opportunities for advancement elsewhere.[23] The "minority tax" refers to extra responsibilities related to diversity committees, community efforts, and mentorship of URiM students.[23,24] These commitments rarely come with dedicated time or resources.[23,24] This curtails the time to pursue critical scholarly work that is often more valued in the promotion process. The additive effects of distance traveled, gratitude tax, and the minority tax can delay advancement to senior faculty rank.

"Power distance" is defined as the extent to which a person with lower perceived power in an institution or organization expects and accepts that power is distributed unequally.[23,25,26] URiM faculty may not challenge department leaders out of fear or inconvenience. When URiM numbers are so few, "the goal is survival."[23] The consequences of not being able to share dissenting opinions may include feelings of isolation and disengagement with the institution.

As a result of these "taxes" and barriers, URiM faculty can feel overburdened, undervalued, and demoralized. Recommendations for intervention include familiarizing leadership with the above concepts and allocating more resources and time to individual URiM faculty who have had a longer "distance traveled." Effort can be made to create a workplace culture where faculties feel safe to voice dissenting opinions.[23] During the creation of project teams, the selection of more than one URiM faculty or woman can alleviate additional pressures that stem from fears that failure will reinforce preexisting stereotypes or prejudices.[9]

On a national level, professional development groups (PDGs) or specialized academies can help alleviate feelings of isolation. Amplification of achievements by department leadership, colleagues, and professional groups can contribute to a sense of inclusion.[11] Awards committees should track the nominations of deserving URiM and women faculty for departmental, institutional, and national awards. This allows for equity in recognition of accomplishments.

1.4 | Bridging the scholarship and research gap

Federally funded research grant awards are often heavily weighted as a benchmark achievement used by promotion committees yet are

less frequently awarded to URiM faculty. A 2011 study by Ginther et al,[27] published in *Science*, reported significant differences in the R01 funding rate of African American or Black scientists (AA/B) when compared to White peers. AA/B scientists were less likely to be awarded an R01 (16.1% vs 29.3%) even after controlling for educational background, country of origin, training, previous research awards, publication record, and employer characteristics.[27] Of the 40,069 individuals included in the study, only 1.5% identified as AA/B versus 3.3% Hispanic, 13.5% Asian, and 71% White.[28] A more recent analysis of the data found that African-American women and Asian-American women were also less likely to receive R01 awards, suggesting a possible additive disadvantage for minority women of color.[28]

In response to the study by Ginther et al,[29] the NIH launched a 10-year, $500 million effort to recruit, train, and mentor URiM researchers. A decade later, however, the funding gap persists. A 2020 study by Erosheva et al[30] found that for R01 applications between 2014 and 2016, the overall award rate for AA/B applicants was ∼55% that of White applicants. Although race, ethnicity, and gender are not explicit components of the R01 application, reviewers are able to see the names of the applicants and information about their publications.

A possible reason for differences in funding is unconscious bias—social stereotypes about certain groups of people that individuals form outside their own conscious awareness.[31] Unconscious bias training, double-blinded review, and panel diversity during the grant review process may improve the funding success of women and URiM faculty.[32,33] Other areas that may contribute to the funding gap include research topic choice, differences in mentorship, size of professional networks, and research productivity.[30] For example, AA/B scientists tend to propose research at the community and population level (eg, health disparities and patient-focused interventions), which are funded at lower rates than topics at a fundamental and mechanistic level (eg, on the level of neurons).[28,34] This suggests that the NIH's research priorities may inadvertently exclude well-qualified women and URiM researchers.

Like grant awards, peer review activities and manuscript authorship factor into promotion decisions. The literature on URiM faculty participation in emergency medicine peer review activities and first authorship is scant. With respect to women, a 2018 study examining publications in the *Annals of EM* found that women comprised 31% of reviewers, 24% of the editorial board, and only one of the top 10 highest editorial positions.[35] Previous literature has shown that the percentage of emergency medicine women first authors has been representative of the percentage of women in academic emergency medicine.[36]

The coronavirus disease (COVID-19) pandemic, however, may be creating gender gaps in publication.[37] Before the pandemic, married or partnered female physician-researchers reported spending 8.5 more hours per week on parenting and domestic activities in comparison to their male physician-researcher counterparts.[38] The work of this "second shift," or labor performed at home outside of professional activities, has increased for both men and women during the COVID-19 pandemic but has impacted women more because of the uneven distribution of labor.[39] In a more recent study, a preliminary analy-

sis using author-name recognition of pre-print publications has shown that across disciplines, the proportion of women first authors has decreased during the pandemic and women are also initiating fewer research projects.[37]

Promotion to associate and full professor depends highly on a strong national and international reputation, at least partially based on scholarship. Our specialty and society should strive to achieve equity of opportunity in terms of manuscript authorship, peer review, and editorial board membership. Departments and institutions can assist women and URiM faculty by providing targeted funding opportunities for pilot studies, providing scholarships for grant writing workshops, and additional mentorship and sponsorship. Finally, departments and institutions can adopt processes that lighten the load of the "second shift," such as extended hours and emergency childcare services and/or subsidies for faculty with increased time requirements for child, family, and eldercare.

1.5 | Creating leadership and development opportunities

In 2015, McKinsey & Company and LeanIn.Org launched a study of diversity in the workplace, gathering data from 600 companies.[40] The study found that the biggest obstacle to climbing to a leadership position occurred early on; women and minority employees failed to advance because they could not step up onto the first rung of initial managerial positions. This "broken rung" impacted the organization by decreasing the pool of women and minority candidates at every subsequent level of leadership. Similar processes may be in effect in academic medicine.

To create a talent pipeline of qualified women and URiM candidates, careful attention must be applied to the search and hire of women and URiM faculty at all levels of leadership and management (eg, assistant program directors and assistant medical directors). Search committees should be diverse and inclusive. They should be required to complete unconscious bias training and use transparent, objective criteria to evaluate candidates. The McKinsey study noted that in companies with smaller gender disparities in representation, half of the employees had received unconscious bias training in the last year compared to a quarter of employees in companies with wider disparities.[40]

Companies that were effective in repairing the "broken rung" (1) tracked and publicized diversity metrics and goals, (2) set targets for representation in first-level managerial positions, (3) held senior leaders accountable for the hire, promotion, retention, training, and mentorship of women and URiM employees, and (4) incentivized leadership through rewards.[40]

Fixing the "broken rung" alone is not enough: only 18% of medical school deans are women and 12% are minorities.[41] Without a major shift in the status quo, it will take 50 years to reach gender parity in academic medicine.[41] Term limits for department chairs, deans, and other high-level leadership roles can accelerate diversification. This idea has been embraced by the NIH, which recently announced 12-year term limits for its tenured intramural laboratory and branch chiefs to

TABLE 1 Best practices for avoiding gender-bias in letter writing

Bias	Suggested best practice
Letters for male applicants tend to be longer	Pay attention to length; address competencies and accomplishments completely
Women and URiM often referred to by their first name	Use Dr. XX in all letters (even if you know the person very well)
Women are less likely to be described with agentic (male) characteristics	Balance descriptions of women as caring, compassionate, selfless with agentic terms, for example, capable, talented
Letters for women often have more "doubt-raisers" which can negatively influence the reader, and detract from positive descriptions	Avoid doubt-raising caveats such as "while she does not have many peer-reviewed articles…," or "while she started her academic career somewhat later…." Just state the facts
Irrelevant information that does not apply to the skills, traits valued in the current position can detract from the letter writer's endorsement	Avoid describing interests and hobbies that do not apply to the skills or traits valued
Letters for men often spend more time describing research and academic accomplishments	Be sure to describe important research, publications, national and international speaking invitations
Letters for women often emphasize their effort more than their ability	Avoid grindstone terms such as "hard-working, tireless" Emphasize talents and unique accomplishments

create new opportunities for women and URiM leaders. Planned turnover after a reasonable term length allows for a balance between continuity and the innovation that comes with diverse leadership.[41]

1.6 | Increasing equity in the promotion process

A fair promotion process requires a holistic review of applicants and their accomplishments. Decision making for promotion and tenure has been described as a balance between rules and goals.[42] The "rules" may require that the candidate has a certain number of papers, lectures, and courses. The "goals" are more intangible and take into consideration an applicant's qualities such as innovation, leadership, and service. APT committees should be composed of diverse faculty who recognize that career trajectories vary between faculties. Committee members should also receive unconscious bias training.[43-45]

APT committees rely heavily on letters of support written by faculty at or above the level of promotion. Prior studies looking at differences in letters for men and women have noted differences in length and adjectives used.[46,47] Women are more often described by their work ethic rather than their ability or talent.[47] These differences have the potential to adversely affect a committee's decisions. Disseminating best practices for promotion letters can prompt letter writers to avoid gender bias[48] (see Table 1). Box 1 provides examples of biased

Box 1. Examples of biased and equitably written letters

- Example of letter of recommendation with biased elements.
- Susie is a compassionate educator [*use of first name and use of non-agentic term*]. Her selflessness and hard work [*grind adjectives*] have led to creation of an excellent national education program on substance abuse that has been adopted by a number of hospitals. Although her academic career was delayed [*doubt raising caveat*], she has contributed to a number of peer review articles and made several presentations for national organizations.
- Example of letter of recommendation with equitable language.
- Dr. Smith is a talented educator [*use of title and agentic terms*]. She took a leadership role in the development of a national education program on substance abuse [*emphasizes leadership and specific accomplishment*]. This program has been adopted by 10 health systems across the county [*cites impact of faculty member's contribution*]. In addition, she was invited to present at the American College of Emergency Physicians (ACEP) national conference for an audience of 500 hundred physicians, as well as at the International Conference on Emergency Medicine (EM). Dr. Smith is first or second author on five peer-reviewed articles on substance abuse published in high-impact journals in the last 5 years. She has also presented seven research abstracts at national conferences [*specifically lists important presentations and scholarly activities without qualifiers or caveats*].

and equitably written letters. Professional groups can play a crucial role via the formation of letter writer bureaus that can assist in finding letter writers who are aware of these issues for women and URiM faculty.

1.7 | Embracing a culture of inclusivity

Creating a culture of inclusivity is essential to ensuring the advancement of women and URiM faculty in academic medicine. The formal culture is reflected by the mission, vision, and core values of a department and must align with the varying professional needs of all faculties. The informal culture of the department, which is felt and experienced by faculty members, must also align with the formal culture. For example, a department may present itself as valuing diversity and inclusion without reflecting this value in the composition of its leadership. Transparent processes for recruitment, promotion, and compensation all support a culture of inclusivity. Policies that address gender and URiM faculty's specific needs, including clear policies surrounding harassment

and discrimination, may prompt departments to examine department-specific barriers and solutions.

2 | PROCESSES

Implementing transparent metrics and tracking at the departmental and institutional level can lead to more equitable processes.[49,50] Publicizing metrics can drive measurable change. Making information publicly available signals that equity is a priority and a core value of the organization. An individual or task force with administrative support can be designated to track rates of promotion, percentage of leadership roles held by women and URiM faculty, relative attrition rates, and reasons for departure. Adoption of transparent compensation rubrics, including indirect compensation (eg, buy down, administrative support, funding for specific roles/initiatives, travel/CME allocation, and bonuses), and audits of salaries with subsequent adjustment also address potentially hidden biases.

2.1 | Policies

Early and mid-career women are more likely to have family responsibilities and life events that necessitate reducing work responsibilities or temporarily stepping away from academic priorities, thus decreasing academic productivity.[51] For example, a study by Ly et al,[52] showed that women spent 100.2 more minutes per day on childcare than their male counterparts. "Stop the clock" policies are essential at institutions with deadlines for promotion and tenure to ensure parity for early and mid-career women. Departments that do not have specific policies or practices related to pregnancy-related scheduling (eg, reduction or elimination of night shifts in the third trimester), family leave, lactation, or graduated return to work, may benefit from a task force to review needs and existing policies.[53,54]

Even later in their careers, women faculty may experience a disproportionate load of domestic responsibility. A total of 61% of elderly caregivers are women; women may find themselves in the "sandwich generation," caring simultaneously for children and aging parents.[55] Workplace and workforce policies that address gender-specific needs can lead to enhanced job satisfaction.[56]

2.2 | Harassment and discrimination

Harassment and discrimination occur in many forms, some more obvious than others. An environment where harassment and discrimination are allowed to exist does not create a culture where diverse faculty can flourish. There are multiple strategies departments can employ to address these issues. Departments can utilize validated tools to anonymously survey employees.[57] Developing policies with realistic reporting mechanisms can alleviate fear of retaliation, particularly if the policies incorporate transparency with regards to the investigative process, options for perpetrator repercussions, and protection for the individual(s) who have been targeted. Role modeling of senior leadership, routine training focused on bystander interventions, and robust reporting mechanisms signal to faculty that the department upholds a zero-tolerance policy.

Creating a culture of inclusivity requires deep and critical reflection on the existing culture, policies, and processes of the department. Although it is important to incorporate the voices of women and URiM faculty, it is also important to ensure that they are not solely tasked with the responsibility of improving workplace culture. This is the responsibility of departmental leadership in leading the way and including all faculty members in creating and maintaining a fair and equitable workplace.

3 | CONCLUSION

Championing diversity requires more than a shift in emergency physician workforce demographics. The simple recruitment of a diverse workforce does not ensure the advancement of women and URiM faculty to higher academic ranks or leadership positions. Achieving excellence from a diverse workforce requires that their life experiences and priorities be heard, valued, respected, and continually acted on to improve learning, patient care, and organizational processes.

Individual, departmental, institutional, and societal factors all contribute to women and URiM faculty lagging in academic promotion. To overcome these barriers, individuals, organizations, and the specialty of emergency medicine must imagine and create new possibilities, policies, and priorities. Supporting and promoting women and URiM faculty may take the form of faculty development initiatives to improve individual knowledge, skills, and mentorship networks, but may also require changes to policies and promotion requirements to value a range of contributions from faculty members.

By publishing a policy statement acknowledging barriers to the promotion of women and URiM faculty and describing potential solutions, ACEP is demonstrating its commitment to a vision of emergency medicine that includes fair advancement and leadership roles for women and URiM emergency medicine physicians (see full ACEP policy statement here: https://www.acep.org/patient-care/policy-statements/overcoming-barriers-to-promotion-of-women-and-underrepresented-in-medicine-urim-faculty-in-academic-emergency-medicine/). Creating and maintaining a culture of inclusion will benefit current and future physicians, other healthcare professionals, and the patients we serve.

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