

Commitment to inclusion: The importance of collaboration in gender equity work

Women's Health
Volume 20: 1–10
© The Author(s) 2024
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/17455057241252574
journals.sagepub.com/home/whe



Jennifer K Lee^{1,2,3} , Rachel B Levine^{1,4}, David M Yousem^{1,5},
Nauder Faraday^{1,2}, Kimberly A Skarupski^{1,4}, Masaru Ishii^{1,6,7},
EL Daugherty Biddison^{1,4} and Maria Oliva-Hemker^{1,3}

Abstract

Despite decades of faculty professional development programs created to prepare women for leadership, gender inequities persist in salary, promotion, and leadership roles. Indeed, men still earn more than women, are more likely than women to hold the rank of professor, and hold the vast majority of positions of power in academic medicine. Institutions demonstrate commitment to their faculty's growth by investing resources, including creating faculty development programs. These programs are essential to help prepare women to lead and navigate the highly matrixed, complex systems of academic medicine. However, data still show that women persistently lag behind men in their career advancement and salary. Clearly, training women to adapt to existing structures and norms alone is not sufficient. To effectively generate organizational change, leaders with power and resources must commit to gender equity. This article describes several efforts by the Office of Faculty in the Johns Hopkins University School of Medicine to broaden inclusivity in collaborative work for gender equity. The authors are women and men leaders in the Office of Faculty, which is within the Johns Hopkins University School of Medicine dean's office and includes Women in Science and Medicine. Here, we discuss potential methods to advance gender equity using inclusivity based on our institutional experience and on the findings of other studies. Ongoing data collection to evaluate programmatic outcomes in the Johns Hopkins University School of Medicine will be reported in the future.

Keywords

allyship, equity, gender, leadership, promotion, salary, women

Date received: 22 September 2023; revised: 12 March 2024; accepted: 16 April 2024

Introduction

Career development and leadership programs for women faculty^{1–4} create a safe space separate from men where women can develop their professional identities and clarify their desired trajectories. This space is important for creating psychological safety and camaraderie among women in situations where men hold the majority of leadership positions with decision-making power.⁵ Women in academic medicine can also learn the nuances of professional relationships, such as mentorship and sponsorship, and gain access through these programs to networking and advising venues that foster these professional relationships.^{3,4} These programs have supported women faculty by increasing retention⁶ and assisting them in attaining promotion⁷ and leadership positions.⁸ Continuing these programs is essential because the current culture in academic medicine largely favors men in key areas, such as promotion⁹ and salary.¹⁰

¹Office of Faculty, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

²Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

³Department of Pediatrics, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

⁴Department of Medicine, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

⁵Department of Radiology, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

⁶Department of Otolaryngology, Head and Neck Surgery, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

⁷Department of Neurosurgery, Johns Hopkins University School of Medicine (JHUSOM), Baltimore, MD, USA

Corresponding author:

Jennifer K Lee, Johns Hopkins Bloomberg Children's Center, 1800 Orleans Street, Suite 6321, Baltimore, MD 21287, USA.
Email: Jennifer.lee@jhmi.edu



Though career development and leadership programs for women have increased the retention⁶ and promotion⁷ of women within single institutions or programs, nationwide data indicate that women have made only modest gains. Women physicians continue to earn less than their men counterparts.¹⁰ Although women comprise 45% of medical school faculty, only 24% of department directors, 29% of full professors, and 27% of medical school deans are women. Only modest gains occurred between 2016 and 2023 with a 7% increase in women department directors, a 6% increase in women professors, and an 11% increase in women deans.⁵ Clearly, relying on professional development programs for women alone is likely insufficient to close the gender gap.

Challenges in pursuing gender equity will increase. Programs that support the professional advancement of women are under growing scrutiny by critics who claim that they are discriminatory.¹¹ As the US Department of Education receives a rising number of complaints alleging discrimination against men, some universities have canceled their women's leadership programs, scholarships, and awards.¹² Opponents argue that women's programs violate Title IX regulations, which state that no person shall, on the basis of sex, be excluded from participation in education programs or activities that receive federal funding. Programs that fall under Title IX regulations at academic medical centers include those that provide training and grant a degree, diploma, or certification for a specific occupation.¹³

We need a different approach that will shift academic medicine toward systems, policies, and cultures that truly value gender equity by achieving and sustaining it across academic medical institutions in the United States. Leaders in positions of power, who are predominantly men,⁵ can partner with faculty of all genders to create equity within the highest echelons of academic medicine. Additional strategies must be considered given the current political environment, especially in the eventuality that single-gender programs are not allowed to continue.¹² Such strategies will require a strong commitment from leaders of all genders nationwide. We include the following recommendations for action and examples of initiatives taken by the Office of Faculty in the Johns Hopkins University School of Medicine (JHUSOM) to improve gender equity.

Unite faculty on challenging topics through shared experiences

Many professional development and leadership programs for women are designed to focus on the woman's perspective and experience, sometimes to the point of excluding men. This approach alone may not engage faculty of other genders and influential men leaders who could help speed progress toward equity across institutions and the country. Programs for all faculty can also encourage men to become

allies for women by incorporating gender bias as a theme throughout the curriculum. For example, negotiation skills are influenced by gender^{14,15} and many past negotiation seminars were designed for women.^{3,16} Teaching negotiation to faculty of all genders in the same program could help participants collectively appreciate gendered differences. Discussing evidence that women are often penalized or negatively judged when they negotiate¹⁷ and that women obtain better negotiation economic outcomes when they have information about the bargaining range, when they negotiate on behalf of others, and if they have negotiation experience¹⁵ could help participants mitigate future gender discrepancies. Program facilitators will need to be skilled at ensuring that all people have the opportunity to speak while encouraging others to deeply listen without judgment. Safe and confidential environments can encourage faculty to address their gender biases and advocate for each other and themselves.

All faculty should be welcomed to open dialogue about different perspectives and commonalities within shared experiences, such as struggles with work-life integration (integrating one's work and life to complement and support each other) and family care.¹⁸ Problems that were once considered "women's issues" now pertain to men, too, as the number of men caretakers or primary household organizers has increased.¹⁹ Women faculty are well poised to share knowledge that may apply to men in similar situations. Men who are knowledgeable about improving work-life integration should partner with women to define problems, offer solutions, disseminate information, and share leadership and spokesperson responsibilities. Participation in wellness initiatives like those in women's programs, including discussing and learning tools for resilience,²⁰ could benefit all genders. Broadening inclusivity can also raise awareness about diverse family perspectives, including the experiences of single parent or multi-generational households, same sex parents, and families with transgender or gender diverse members.

A survey study showed that the majority of full-time medical school faculty who served as primary caregivers were women. However, the proportion of women and men who lived with a care recipient and the degree of mental and emotional strain from caregiving did not differ by gender.²¹ The Office of Faculty in the JHUSOM started Virtual Caregiving Community Groups to help support faculty of all genders who care for family members or friends with chronic illness or disability. Participants discuss their experiences and share resources with each other in two groups for caregivers of spouses or partners and caregivers of parents or other family members.

All faculty encounter challenges with work-life integration. However, difficulties may be especially pronounced for women, unmarried physicians, single parent physicians with young children, mid-career physicians, and physicians in certain subspecialties. Women physicians reported

significantly worse work-life integration than their men counterparts in general internal medicine, psychiatry, family medicine, general surgery, emergency medicine, general pediatrics, and anesthesiology.²²

To help address these problems, the JHUSOM Office of Faculty started the Trifecta Series of interviews and discussions. Professors and leaders of all genders and diverse racial and ethnic backgrounds discuss how they pursued and achieved promotion while supporting their personal well-being and caring for their families. Interviewees and Office of Faculty members share their personal stories, challenges, triumphs, and advice. For example, difficulties in resuming clinical practice after childbirth and parental leave, family care dilemmas, clinical productivity and research pressure, and problems finding effective mentorship are openly discussed. These kinds of programs can counter the narrative that faculty who are raising young children are less likely to succeed.²³ Information about promotion criteria is also provided, and discussants give examples on how they met the promotion metrics.

Audience feedback has shown that faculty appreciate learning that many faculty struggle with work-life integration stress, and they are grateful to receive advice on how to achieve promotion from diverse role models. We are hopeful that these multi-gender events, such as the Virtual Caregiving Community Groups and Trifecta, can help forge relationships with mutual respect, active listening, and collaboration²⁴ among faculty of all genders and backgrounds.

Create professional cultures and expectations that support family care for all faculty

To improve workplace satisfaction and retention, department leadership should adjust work expectations and requirements when faculty take childbirth and parental leave, especially amid physician workforce shortages.^{25,26} Some women physicians feel pressured to shorten their childbirth and parent leave.²⁷ They are not alone. Men physicians also report that pressure to return to work is a prominent reason for not taking their fully allotted paternity leave.²⁸ By not using the full amount of allowed parental leave, regardless of gender, faculty could inadvertently encourage a culture where family care is not valued. To reduce pressure to return to work early, many departments in the JHUSOM reduce owed clinical service after childbirth and parental leave. Returning clinicians also may need assistance in regrowing their patient base and in securing clinical coverage for lactation breaks. Faculty whose salary and benefits are grant-funded may need department or institutional support and an adjusted grant timeline by the funding agency. The National Institute of Health's extension of the Early Stage Investigator Status by 1 year for childbirth²⁹ has supported

many women with grant applications. Similar policies to support scientists of other genders with high family care responsibilities should also be considered. In the United States, financial sources to cover childbirth recovery and parental leave vary by state. Employers and employees can contribute to paid parental leave plans, and childbirth qualifies parents for short-term disability in some states. The institution may be largely responsible for funding parent leave in other states.³⁰

Faculty with evening and weekend family care responsibilities should not be pressured to work during non-working hours. While physicians of all genders regularly use after-work hours to complete documentation in the electronic health record system, women may be disproportionately burdened.³¹ All faculty and leaders should partner to propose organizational models that do not rely on uncompensated work during nights and weekends. This could include improved administrative support, more efficient and user-friendly technology, scribes, and documentation by other clinicians on the team.³¹ Artificial intelligence technology, such as generative pre-trained transformer technology, could be leveraged for this purpose if the technology integration is prioritized by healthcare institutions and their commercial partners.³² Such effort might reduce burnout and improve retention. To better understand the scope of the problem in the JHUSOM, the Office of Faculty is currently evaluating the burden of after-hours clinical documentation by physician gender.

Support allyship

Allyship occurs when people in leadership positions of power, who are typically men, recognize the systemic barriers and inequalities that many women encounter in academic medicine. These men can serve as allies by intentionally and actively advocating for the career advancement of women. As collaborative relationships grow among faculty of all genders, men should feel welcome and empowered to serve as allies for women.³³ Role modeling, discussing how to be a proactive ally, and "leading by example" are important steps. Men can nominate high-performing women for awards and leadership positions and invite women to join committees whose actions will have high institutional, national, and international impact. Key conversations that lead to policies, projects, workflow changes, and resource distribution should be held at times and locations where faculty with family responsibilities can fully participate.

Women too often do not receive full credit for their ideas and contributions. They are more likely to be discounted or harshly judged for their physical appearance or for talking too much, including during video conferences, than men.³⁴ Men should ensure that women are recognized as expert professionals by making sure they have the opportunity to speak during meetings and redirect the

conversation back to the woman if she is interrupted.³⁵ Representation by women and men speakers on every panel is essential, especially at national conferences.³⁶ Women are more likely to speak at regional than national conferences in some subspecialties.³⁷

Professional titles for women should be used in front of patients, when introducing them to new colleagues, during invited lectures, in letters of support, and in committee discussions for leadership positions, promotion, and awards. Leaders and senior faculty can role model this behavior to encourage others to do the same. If a discrepancy in the use of professional titles persists, a respected leader should explain that choosing to use professional titles for only men can worsen inequity and even foster discrimination. Women should be invited to social networking events, including traditionally masculine activities such as sports events, where professional relationships may be built. Importantly, men must oppose sexist humor and derogatory language to counter gender stereotypes and discrimination.³⁵

Institutional, School of Medicine, and departmental leaders should prioritize gender equity in salary, promotion, resource allocation, appointments to leadership positions, and endowed chairs. Having a shared vision that holds leaders accountable for achieving and sustaining gender equity based on longitudinal data is essential. Likewise, faculty can request and review gender-based data from their institution and constructively partner with their leaders to implement systematic changes when needed (Table 1).

The JHUSOM Office of Faculty runs several cohort programs for the career development of women faculty. Men leaders participate as session facilitators and panelists alongside women leaders. For example, high-level men and women leaders from the JHUSOM and the Johns Hopkins Health System Corporation lead sessions and host discussions in the Executive Leadership Program for women faculty. A session in the Early Career Women's Leadership Program was designed in consultation with the Office of Diversity, Inclusion, and Health Equity. In this session, a panel of men and women faculty who are and are not from racially and ethnically underrepresented in medicine (URiM) groups, including immigrants, discuss how past professional experiences shaped their careers today. Panelists also describe what effective allyship looks like for them.

The Women's Empowerment and Leadership Initiative (WELI) within the Society for Pediatric Anesthesia^{4,38} was created by a JHUSOM Office of Faculty member. The 16 founding members of WELI's Advisory Board included 7 (44%) men leaders in anesthesiology, including men with prominent society, hospital, and department leadership roles. Men comprise more than 40% of advisors in WELI's protégé-advisor system, and facilitators of all genders designed the curriculum and teach seminars. Engaging leaders and experts of all genders helped to create an environment where faculty can learn about issues that many women face in the workplace. These issues include being frequently

asked to do uncompensated work that does not contribute toward promotion; struggles with returning from maternity leave and continuing lactation; losing credit for their ideas; unequal distribution of household duties; and bias. Importantly, all interested faculty are welcomed and encouraged to serve as advisors to the women WELI protégés using sponsorship, mentorship, and coaching techniques.

Address unique challenges faced by URiM women

Leaders and faculty of all genders should partner to support programs and systems that equitably advance underrepresented women. Women with intersectional identities, such as women of color^{39,40} or who have a disability⁴¹ or different sexual orientation,⁴² encounter particularly high barriers to advancement. These include discrimination, bias, and historic institutional racism.⁴³ Lesbian, gay, bisexual, transgender, queer, non-binary, intersex, or asexual physicians and scientists are at greater risk of sexual harassment than their heterosexual and cis-gender colleagues.⁴² Faculty with disabilities also face discrimination in the form of ableism and other professional obstacles.⁴¹ For example, difficulty with travel due to a disability may make delivering invited lectures challenging or impossible, thereby delaying promotion and opportunities to be recruited for leadership positions.⁴⁴ To address this, the JHUSOM Office of Faculty led an institutional policy change to make virtual and in-person lectures carry equal weight for promotion to ensure that faculty who cannot easily travel can still disseminate their scholarly work. In addition, ongoing and system-wide training to reduce bias and recognize personal vulnerability for bias may promote and sustain culture change.⁴⁵

Men should be sensitive to the fact that women, especially URiM women, have historically been excluded from meetings and conversations where critical organizational decisions are made. Serving as an ally involves a commitment to constant learning, addressing the historic nature of discrimination with humility, and the persistent pursuit of healing.⁴⁶ As collaborative relationships grow among faculty of all genders, men should be welcomed and empowered to serve as allies for women with intersectional identities and people with non-binary gender identities.³³

Institutional data should be collected to monitor trends in the proportion of URiM faculty who join career advancement programs to ensure that all faculty feel a sense of belonging and can participate. The JHUSOM Office of Faculty compares demographic data of program participants to the overall faculty body. The ethnic and racial categories that the JHUSOM categorizes as URiM are Hispanic, Black or African American, Native Hawaiian, other Pacific islander, American Indian, and Alaska Native. Among 51 participants in the Office of Faculty's 2023 Early Career Women's Leadership Program, 17% were

Table 1. Multi-level approach to achieving gender equity.

Organizational level	Recommendation
Institution	<p>Men with leadership positions influence, support and participate in gender equity initiatives</p> <p>Hold the leadership at multiple levels accountable for attaining gender equity in:</p> <ul style="list-style-type: none"> Salary Promotion Allocation of resources Leadership positions Endowed chairs <p>Search committees for leadership and endowed chair positions:</p> <ul style="list-style-type: none"> Be co-led by faculty of different genders Include voting members of all genders Be charged with evaluating qualified candidates from diverse backgrounds <p>Career and leadership development programs for women faculty:</p> <ul style="list-style-type: none"> Teach faculty to navigate institutional, school of medicine, and departmental systems Build community Support faculty's individual needs <p>Career and leadership development programs for faculty of all genders:</p> <ul style="list-style-type: none"> Teach faculty how to mitigate gender bias
School of Medicine	<p>Ensure that virtual lectures carry equal weight as in-person lectures for promotion</p> <p>Analyze and present data (stratified by gender and department) to institutional, School of Medicine, and departmental leadership and to faculty every year on the following:</p> <ul style="list-style-type: none"> Salary Promotion rates Leadership positions Endowed chairs <p>Provide Unlocking Promotion Readiness seminars: interactive seminars on how to navigate the promotion process and prepare applications for promotion</p>
Department	<p>Encourage faculty of all genders to take parental leave</p> <p>Pro-rate work productivity expectations according to the duration of childbirth recovery and parental leave</p> <p>Equally nominate faculty of all genders for invited lectures, awards, and other milestone events</p> <p>Ensure departmental gender equity in:</p> <ul style="list-style-type: none"> Salary Expedient nomination of qualified faculty for promotion Appointing qualified faculty for departmental leadership roles Awarding of endowed chairs <p>Hold meetings and key conversations at times and locations that allow faculty with family care responsibilities to fully participate</p> <ul style="list-style-type: none"> Recognize women in meetings as expert professionals <p>Reduce uncompensated work</p> <ul style="list-style-type: none"> Decrease the amount of time that physicians document in the electronic health record during non-working hours
Faculty	<p>Participate in community building group activities:</p> <ul style="list-style-type: none"> Caregiving Community Support Groups Discussions and interviews with professors and leaders of all genders about promotion, personal well-being, and family care Writing Accountability Groups (WAGs) Promotion Accountability Groups (PAGs) focused on preparing curriculum vitae, letters, and other documents to apply for promotion <p>Take individual actions:</p> <ul style="list-style-type: none"> Participate in 1:1 advising and coaching with leaders in faculty development and other areas Advise faculty in how to advocate for their promotion and career advancement during meetings with their department and division directors Review institutional and departmental data and partner with leadership to suggest solutions for areas with gender inequity

from an URiM group. This exceeds the 10% of total faculty in the School of Medicine who are URiM.

Encourage equal opportunity to attain career milestones

Leaders in academic medicine are in a position to encourage their faculty to advance in their careers through a variety of actions. These include opportunities to clarify the status of gender inequity. We recommend the following.

Support innovative approaches to invited lectures

Sponsorship is critical for career advancement.^{47,48} Intentional steps must be taken to ensure that faculty of all genders are invited to speak about their scholarly work in extramural lectures, which are a key metric for promotion at many institutions. During the coronavirus-19 pandemic, three JHUSOM departments developed programs for early and mid-career faculty to deliver invited virtual lectures. The leaders for each program, many of whom are in the Office of Faculty, ensured that a similar number of women and men from JHUSOM were nominated to speak to audiences at other institutions. Survey feedback showed that the virtual speaking opportunities were highly valued by faculty of all genders who typically cannot travel for in-person lectures due to family care responsibilities or high clinical workload.⁴⁹ To promote equity in opportunity and advancement, the JHUSOM Office of Faculty led an institutional policy change to make virtual lectures carry equal weight as in-person lectures for promotion.

Facilitate promotion

Nationally, women and URiM faculty have delayed promotions relative to men and non-URiM faculty.⁹ The JHUSOM Office of Faculty analyzes promotion data that span several decades to evaluate past and recent trends. Promotion data are stratified by gender and URiM status. Each year, the dean's office and all department directors review these data to discuss potential barriers to promotion faced by specific demographic groups and how to mitigate this problem. A task force was recently created in the JHUSOM to evaluate how to incorporate scholarly work in diversity, equity, and inclusion into the promotion process. Department directors are also reminded to encourage their faculty to participate in the professional development programs offered by the Office of Faculty.

To support faculty who are struggling with attaining promotion, the Office of Faculty started an Unlocking Promotion Readiness seminar. Leaders explain the promotion criteria, share tips for navigating the promotion process, and teach faculty of all genders how to show regional, national, and international impact on their curriculum vitae

and in promotion letters. Example documents from faculty who were successfully promoted in a variety of disciplines are provided. After participants learn how to effectively describe a project's purpose, accomplishments, results, and recognition, faculty work together to evaluate each other's curriculum vitae with attention to how they describe their accomplishments. Then, they offer suggestions for improvement. The Office of Faculty held three Unlocking Promotion Readiness seminars over 8 months, and 270 faculty registered. Fifty-five percent of registrants were women. In addition, 21% of registrants were ethnically or racially URiM, which exceeds the 10% of URiM faculty in the School of Medicine. Registrants can either attend the seminar live on zoom or receive a recording, and they are encouraged to share the recording with their colleagues. Participants are also invited to join Writing Accountability Groups⁵⁰ or Promotion Accountability Groups to support each other as they prepare their promotion applications. In addition, all Office of Faculty members offer one-to-one meetings with any faculty member who is interested in discussing their career progress and next steps.

The JHUSOM offers two tracks for promotion: the scholarly track and the clinical excellence track. The clinical excellence promotion track began in 2020. To provide information about this newer track, the Office of Faculty created the CE-ing Your Way at Hopkins: Pursuing Promotion in the Clinical Excellence Track seminar. Professors of all genders describe their journeys and offer advice in panel discussions about achieving promotion in this track. Office of Faculty deans and leaders from the JHUSOM clinical excellence promotion committee facilitate the discussions and answer questions from the audience. Panelists also openly discuss their challenges and triumphs with their work-life integration, including balancing family care with professional commitments. All registrants receive written materials about the clinical excellence promotion criteria. More than 200 faculty registered for our inaugural virtual seminar in 2024, which makes this one of our most popular seminars in the past few years. Sixty-nine percent of registrants were women and 14% were from a racially or ethnically URiM group. The seminar's information is further distributed when registrants share the recording with their departments and colleagues.

Examine equity in leadership

Not all leadership positions hold influence, power, and the resources needed for success and career advancement. Women are more likely to attain "low-level" leadership positions, such as education program director, while "high-level" positions, such as department directorships, are more often held by men.^{5,51} Institutions should internally track and display data about the genders of faculty who hold department director, dean, and other high hospital and university leadership positions.⁴⁸ The awarding of endowed chairs and professorships, which are

predominantly held by men,⁵² should also be internally tracked and reported. These data are displayed for JHUSOM faculty on an Office of Faculty website and updated at least annually. Faculty should bring concerning data to their department directors and other institutional leaders. The leadership should be held accountable to the faculty and pursue solutions that are feasible for their department and institution while informing the faculty of their efforts.

Search committees for leadership positions should be tasked with identifying a diverse pool of candidates. In the JHUSOM, women and men typically co-lead search committees, including for department director searches. Voting members are faculty of all genders, and all committee members must take unconscious bias training. The careful selection of search committee members helps ensure that qualified candidates of all genders from diverse backgrounds are considered.⁴⁸

Identify salary inequities

More than 90% of subspecialties pay women physicians less than men at the start of their careers and at 10 years.¹⁰ When low starting salaries are combined with delayed promotion,⁹ lack of access to high-level leadership positions,^{5,51} and the associated salary raises, the cumulative lifelong loss of income becomes substantial for women.⁵³ Even if leaders are understandably reluctant to publicly share institutional data showing gender discrepancies in salary, these data should be reported locally and annually for their faculty to view. Annual salary data stratified by gender and department are analyzed and provided to leadership and faculty by the JHUSOM Office of Faculty. Faculty of all genders should hold their department and institution directors accountable for having consistent equity in salary by gender.

Strategies to analyze salary by gender and mitigate differences are discussed in the book *Closing the Gender Gap in Medicine: a Roadmap for Healthcare Organizations and the Women Physicians Who Work for Them*.⁵⁴ Numerous factors impact salary, and it is essential that all faculty understand how their compensation is determined. Departments should have transparent salary data⁴⁸ and a protocol to follow when a faculty member has concerns about salary equity. Protocols should include meetings with division and department administrators to review the faculty member's salary structure with comparison of their salary to regional and national benchmarks by rank.⁵⁵ Faculty should feel empowered to ask their department and division directors about key career opportunities for salary raises and their timing.

Overcome resistance to pursuing gender equity

The highest levels of leadership must commit and hold themselves accountable to reducing gender gaps using

data. For example, the JHUSOM dean and vice deans require an annual review of salary and promotion data with respect to gender and URiM status. The data are openly discussed in a forum with the deans, department directors, and other institutional leaders. Department directors who successfully reduce gender gaps in salary and promotion are recognized. Data showing the persistence of gender discrepancies, such as in the distribution of leadership roles, may encourage leaders who do not believe that gender inequity exists to reconsider their viewpoint. The appointments of women to "low-level" leadership positions (sometimes described as housekeeping roles), such as Grand Rounds directors, compared to "high-level" positions that more often come with resources, power, and influence^{5,51} should be clearly distinguished in the data. Men with more knowledge about gender inequities at their institution are more likely to actively support efforts to advance women.⁵⁶

Approximately every 2 years, the JHUSOM Office of Faculty conducts a school-wide faculty satisfaction survey. Questions pertain to a variety of topics, including reasons faculty choose to stay or seek a position elsewhere, work-life integration, and satisfaction with administrative, clinical, and research support. In 2022, the survey response rate exceeded 70%. Data stratified by gender and an overview of themes from free-text comments to open-ended survey questions are presented to the institutional leadership and discussed. Leaders must commit to responding to the findings of institutional surveys.

Resources for women's career advancement programs must continue with the full support of high-level leaders. The dean for the JHUSOM traditionally provides the opening speech for the Office of Faculty's Executive Women's Leadership Program. Vice deans and the hospital and health system presidents attend seminars and meet with participants. Such engagement from high-level leaders strengthens a culture that values women faculty. Curricula that address recognizing and mitigating gender stereotypes, bias, and discrimination⁵⁷ should be included in all career development programs, including those specifically for women and programs for all genders. This can build allies and reduce the risk that participants perpetuate gender bias in the future. It must be remembered that a leader's gender does not predict whether they will equitably support their faculty. Some women may unintentionally perpetuate gender bias themselves.⁵⁸

While academic medicine has strived to adopt a no-tolerance policy for sexual harassment,⁵⁹ women leaders continue to report suffering mistreatment and bullying during their careers. For some, the mistreatment is so severe that they have to change jobs. A no-tolerance policy for the mistreatment of women, including public humiliation, defamation, verbal disparagement, and social isolation, should be enforced by high-level leaders with clear

definitions of bullying behavior. Training faculty and staff on how to stop bullying if they witness it may also help mitigate the problem.^{60,61} Johns Hopkins Medicine and Johns Hopkins University (JHU) have an online system for faculty, staff, trainees, and learners to report complaints or concerns related to harassment, discrimination, or other unacceptable behavior. Reporters can choose to reveal their identity or remain anonymous.

Future directions for research

Many published studies focus on the experience of women who have already decided to pursue leadership or who hold a leadership position.^{61–63} Research on factors that encourage or discourage an early career woman from choosing a leadership path could identify strategies to recruit talented women into leadership and, if needed, adjust the existing and future leadership environment to be more welcoming to women. Although some research has been conducted on encouraging men to take action against gender inequity,^{56,64} effectively shifting the culture of academic medicine toward equity will require focused work on creating shared ownership among leaders of all genders with longitudinal outcomes. These efforts should also include supporting URiM faculty. Research to mitigate barriers that faculty with intersectional identities face is urgently needed.

Limitations

This article reflects recent experiences in a single institution, and the recommendations and opinions are limited to those of the JHUSOM Office of Faculty deans. A comprehensive review of the experiences at other institutions is beyond the scope of this article. Long-term data are not yet available at JHUSOM. Ongoing data collection to evaluate programmatic outcomes will be reported in the future.

Conclusion

While professional development and leadership programs for women in academic medicine are essential, the persistent nationwide gender gaps in leadership, salary, and promotion demonstrate that only focusing on “fixing” women is not sufficient. A summary of suggestions to leverage inclusivity for gender equity is shown in Table 1. The JHUSOM Office of Faculty will continue to use multi-level approaches that broaden inclusivity and build organizational change for gender equity.

Declarations

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Author contribution(s)

Jennifer K Lee: Conceptualization; Supervision; Writing—original draft; Writing—review & editing.

Rachel B Levine: Conceptualization; Writing—original draft; Writing—review & editing.

David M Yousem: Conceptualization; Writing—original draft; Writing—review & editing.

Nauder Faraday: Conceptualization; Writing—original draft; Writing—review & editing.

Kimberly A Skarupski: Conceptualization; Writing—original draft; Writing—review & editing.

Masaru Ishii: Conceptualization; Writing—original draft; Writing—review & editing.

EL Daugherty Biddison: Conceptualization; Writing—original draft; Writing—review & editing.

Maria Oliva-Hemker: Conceptualization; Writing—original draft; Writing—review & editing.

Acknowledgements

The authors thank the Johns Hopkins University Editorial Assistance Services Initiative for their editing assistance.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Competing interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: J.K.L. has research funding from the National Institutes of Health, consults for the US Food and Drug Administration and Erickson Coaching International, and owns Asclepius Coaching and Consulting, LLC. D.M.Y. receives royalties from Elsevier, consulting and speaking fees from Medality.com, and expert witness consultation fees. M.O.H. has research funding from Takeda Pharmaceuticals and PredictImmune, and consults for Takeda Pharmaceuticals and Janssen Research and Development. The other authors have no disclosures or conflicts.

Availability of data and materials

Not applicable

ORCID iD

Jennifer K Lee  <https://orcid.org/0000-0001-9578-4482>

References

1. Eiland LS, Shields KM, Smith SE, et al. Development and assessment of a nationwide, cross-discipline women faculty

- mentoring program. *Curr Pharm Teach Learn* 2021; 13(12): 1555–1563.
2. Jagsi R and Spector ND. Leading by design: lessons for the future from 25 years of the executive leadership in academic medicine (ELAM) program for women. *Acad Med* 2020; 95(10): 1479–1482.
 3. Levine RB, González-Fernández M, Bodurtha J, et al. Implementation and evaluation of the Johns Hopkins University School of Medicine leadership program for women faculty. *J Womens Health* 2015; 24(5): 360–366.
 4. Schwartz JM, Markowitz SD, Yanofsky SD, et al. Empowering women as leaders in pediatric anesthesiology: methodology, lessons, and early outcomes of a national initiative. *Anesth Analg* 2021; 133: 1497–1509.
 5. Association of American Medical Colleges. Faculty roster: U.S. medical faculty, <https://www.aamc.org/data-reports/faculty-institutions/report/faculty-roster-us-medical-school-faculty> (accessed 7 February 2024).
 6. Chang S, Morahan PS, Magrane D, et al. Retaining faculty in academic medicine: the impact of career development programs for women. *J Womens Health* 2016; 25(7): 687–696.
 7. Chang S, Guindani M, Morahan P, et al. Increasing promotion of women faculty in academic medicine: impact of national career development programs. *J Womens Health* 2020; 29(6): 837–846.
 8. Ford AY, Dannels S, Morahan P, et al. Leadership programs for academic women: building self-efficacy and organizational leadership capacity. *J Womens Health* 2021; 30(5): 672–680.
 9. Richter KP, Clark L, Wick JA, et al. Women physicians and promotion in academic medicine. *N Engl J Med* 2020; 383: 2148–2157.
 10. Catenaccio E, Rochlin JM and Simon HK. Addressing gender-based disparities in earning potential in academic medicine. *JAMA Netw Open* 2022; 5: e220067.
 11. Watanabe T. Women-only STEM college programs under attack for male discrimination, <https://www.latimes.com/california/story/2019-08-20/women-only-science-programs-discrimination-complaints> (2019, accessed 7 February 2023).
 12. Elsesser K. Women’s scholarships and awards eliminated to be fair to men, <https://www.forbes.com/sites/kimelsesser/2022/04/13/womens-scholarships-and-awards-eliminated-to-be-fair-to-men/?sh=2f19cfac7fe2> (2022, accessed 7 February 2023).
 13. King RS and Stoller JK. Know your IX: what academic medical centers should understand about title IX. *Acad Med* 2021; 96: 1131–1136.
 14. Farlow JL, Mott NM, Standiford TC, et al. Sponsorship and negotiation for women otolaryngologists at midcareer: a content analysis. *Otolaryngol Head Neck Surg* 2023; 168(3): 384–391.
 15. Mazei J, Hüffmeier J, Freund PA, et al. A meta-analysis on gender differences in negotiation outcomes and their moderators. *Psychol Bull* 2015; 141(1): 85–104.
 16. Simone AM, Simone M, Block L, et al. Contract negotiation skills: a workshop for women in medicine. *MedEdPORTAL* 2020; 16: 10910.
 17. Fischer LH and Bajaj AK. Learning how to ask: women and negotiation. *Plast Reconstr Surg* 2017; 139: 753–758.
 18. Matulevicius SA, Kho KA, Reisch J, et al. Academic medicine faculty perceptions of work-life balance before and since the COVID-19 pandemic. *JAMA Netw Open* 2021; 4: e2113539.
 19. Accius J. Breaking stereotypes: spotlight on male family caregivers, <https://www.aarp.org/content/dam/aarp/ppi/2017-01/Breaking-Stereotypes-Spotlight-on-Male-Family-Caregivers.pdf> (2017, accessed 7 February 2023).
 20. Margolis RD, Berenstain LK, Janosy N, et al. Grow and advance through intentional networking: a pilot program to foster connections within the women’s empowerment and leadership initiative in the Society for Pediatric Anesthesia. *Paediatr Anaesth* 2021; 31(9): 944–952.
 21. Skarupski KA, Roth DL and Durso SC. Prevalence of caregiving and high caregiving strain among late-career medical school faculty members: workforce, policy, and faculty development implications. *Hum Resour Health* 2021; 19: 36.
 22. Tawfik DS, Shanafelt TD, Dyrbye LN, et al. Personal and professional factors associated with work-life integration among US physicians. *JAMA Netw Open* 2021; 4: e2111575.
 23. Bickel J. How men can excel as mentors of women. *Acad Med* 2014; 89(8): 1100–1102.
 24. Bickel J. Getting somewhere new together: increasing our capacity for dialogue across differences. *J Womens Health* 2021; 30(6): 767–768.
 25. Addressing the healthcare staffing shortage, <https://www.definitivehc.com/resources/research/healthcare-staffing-shortage> (accessed 5 June 2023).
 26. More than half (55%) of US doctors know a colleague who has left clinical care, and nearly 30% have considered leaving themselves, as US physician burnout rises significantly since 2021, says InCrowd 2022 burnout report, <https://www.businesswire.com/news/home/20230130005216/en/More-Than-Half-55-of-US-Doctors-Know-a-Colleague-Who-has-Left-Clinical-Care-and-Nearly-30-have-Considered-Leaving-Themselves-as-US-Physician-Burnout-Rises-Significantly-Since-2021-Says-InCrowd-2022-Burnout-Report> (accessed 3 June 2023).
 27. Sarma AA, Nkonde-Price C, Gulati M, et al. Cardiovascular medicine and society: the pregnant cardiologist. *J Am Coll Cardiol* 2017; 69: 92–101.
 28. Siddiqui OM, Savla B, Chowdhary M, et al. From beaming cancer to beaming parent: paternity leave experiences in radiation oncology. *Int J Radiat Oncol Biol Phys* 2022; 113: 928–933.
 29. National Institutes of Health. Update on NIH extension policy for early stage investigator status (ESI), <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-235.html> (2018, accessed 3 June 2023).
 30. Maternity leave laws by state, www.paycor.com/resource-center/articles/maternity-leave-laws-by-state/ (2023, accessed 19 September 2023).
 31. Rotenstein LS, Fong AS, Jeffery MM, et al. Gender differences in time spent on documentation and the electronic health record in a large ambulatory network. *JAMA Netw Open* 2022; 5: e223935.
 32. Sallam M. ChatGPT utility in healthcare education, research, and practice: systematic review on the promising perspectives and valid concerns. *Healthcare* 2023; 11: 887.

33. Warren MA and Warren MT. The EThIC model of virtue-based allyship development: a new approach to equity and inclusion in organizations. *J Bus Ethics* 2023; 182(3): 783–803.
34. Dhawan N, Carnes M, Byars-Winston A, et al. Videoconferencing etiquette: promoting gender equity during virtual meetings. *J Womens Health* 2021; 30(4): 460–465.
35. Wood DE. How can men be good allies for women in surgery? #HeForShe. *J Thorac Dis* 2021; 13(1): 492–501.
36. Teoh JY, Castellani D, Mercader C, et al. A quantitative analysis investigating the prevalence of “manels” in major urology meetings. *Eur Urol* 2021; 80: 442–449.
37. Soni U, Phair J, Zekelman L, et al. Panel composition and disparities in the topics of presentation in vascular surgery conferences. *Vascular*. Epub ahead of print 28 January 2023. DOI: 10.1177/17085381231154343.
38. Deutsch N, Yanofsky SD, Markowitz SD, et al. Evaluating the women’s empowerment and leadership initiative: supporting mentorship, career satisfaction, and well-being among pediatric anesthesiologists. *Paediatr Anaesth* 2023; 33(1): 6–16.
39. Ogunyemi D, Okekpe CC, Barrientos DR, et al. United States medical school academic faculty workforce diversity, institutional characteristics, and geographical distributions from 2014–2018. *Cureus* 2022; 14(2): e22292.
40. Billups S, Thelamour B, Thibodeau P, et al. On intersectionality: visualizing the invisibility of Black women. *Cogn Res Princ Implic* 2022; 7: 100.
41. Orkin C. Reflections and intersections: disability, “ableism” and metamodern leadership. *BMJ Lead* 2023; 7: 88–90.
42. Marr MC, Heffron AS and Kwan JM. Characteristics, barriers, and career intentions of a national cohort of LGBTQ+ MD/PhD and DO/PhD trainees. *BMC Med Educ* 2022; 22: 304.
43. Verduzco-Gutierrez M, Wescott S, Amador J, et al. Lasting solutions for advancement of women of color. *Acad Med* 2022; 97: 1587–1591.
44. Steinberg AG, Iezzoni LI, Conill A, et al. Reasonable accommodations for medical faculty with disabilities. *JAMA* 2002; 288: 3147–3154.
45. Carnes M, Sheridan J, Fine E, et al. Effect of a workshop to break the bias habit for internal medicine faculty: a multisite cluster randomized controlled study. *Acad Med* 2023; 98: 1211–1219.
46. Ellis D. Bound together: allyship in the art of medicine. *Ann Surg* 2021; 274: e187–e188.
47. Ayyala MS, Skarupski K, Bodurtha JN, et al. Mentorship is not enough: exploring sponsorship and its role in career advancement in academic medicine. *Acad Med* 2019; 94(1): 94–100.
48. Kuo IC, Levine RB, Gauda EB, et al. Identifying gender disparities and barriers to measuring the status of female faculty: the experience of a large school of medicine. *J Womens Health* 2019; 28(11): 1569–1575.
49. Rayaz H, Yedavalli V, Sair H, et al. Staying virtual: a survey study of the virtual lecture experience in academic medicine. *Anesth Analg* 2024; 138(5): 1020–1030.
50. Skarupski K and Foucher K. Writing accountability groups (WAGs): a tool to help junior faculty members build sustainable writing habits. *J Fac Dev* 2018; 32: 1–8.
51. Monroe AK, Levine RB, Clark JM, et al. Through a gender lens: a view of gender and leadership positions in a department of medicine. *J Womens Health* 2015; 24(10): 837–842.
52. Thorndyke LE, Milner RJ and Jaffe LA. Endowed chairs and professorships: a new frontier in gender equity. *Acad Med* 2022; 97(11): 1643–1649.
53. Rao AD, Nicholas SE, Kachniarz B, et al. Association of a simulated institutional gender equity initiative with gender-based disparities in medical school faculty salaries and promotions. *JAMA Netw Open* 2018; 1: e186054.
54. Gottlieb A (ed.). *Closing the gender pay gap in medicine: a roadmap for healthcare organizations and the women physicians who work for them*. Cham: Springer, 2021.
55. Association of American Medical Colleges. AAMC faculty salary report, <https://www.aamc.org/data-reports/workforce/report/aamc-faculty-salary-report> (accessed 4 June 2023).
56. Mazzuca S, Moscatelli S, Menegatti M, et al. Men’s reactions to gender inequality in the workplace: from relative deprivation on behalf of women to collective action. *Front Psychol* 2022; 13: 999750.
57. Molina RL, Ricciotti H, Chie L, et al. Creating a culture of micro-affirmations to overcome gender-based micro-inequities in academic medicine. *Am J Med* 2019; 132(7): 785–787.
58. Begeny CT, Ryan MK, Moss-Racusin CA, et al. In some professions, women have become well represented, yet gender bias persists-perpetuated by those who think it is not happening. *Sci Adv* 2020; 6: eaba7814.
59. Bates CK, Jagsi R, Gordon LK, et al. It is time for zero tolerance for sexual harassment in academic medicine. *Acad Med* 2018; 93(2): 163–165.
60. Iyer MS, Way DP, MacDowell DJ, et al. Bullying in academic medicine: experiences of women physician leaders. *Acad Med* 2023; 98: 255–263.
61. Iyer MS, Way DP, MacDowell DJ, et al. Why gender-based bullying is normalized in academic medicine: experiences and perspectives of women physician leaders. *J Womens Health* 2023; 32(3): 347–355.
62. Guptill M, Reibling ET and Clem K. Deciding to lead: a qualitative study of women leaders in emergency medicine. *Int J Emerg Med* 2018; 11: 47.
63. Hobgood CD and Draucker C. Barriers, challenges, and solutions: what can we learn about leadership in academic medicine from a qualitative study of emergency medicine women chairs? *Acad Med* 2022; 97: 1656–1664.
64. Hardacre SL and Subašić E. Whose issue is it anyway? The effects of leader gender and equality message framing on men’s and women’s mobilization toward workplace gender equality. *Front Psychol* 2018; 9: 2497.