



Contents lists available at ScienceDirect

International Journal of Women's Dermatology

journal homepage:



Editorial

A commentary on gender bias in dermatology and its perceived impact on career development among women dermatologists ☆



ARTICLE INFO

Keywords:

Gender
Gender bias
Discrimination
Inequity
Sexual harassment

ABSTRACT

Gender bias and gender-based discrimination and harassment are known to affect women across all fields of medicine. Despite acknowledgement of a persistent “gender gap” in dermatology, there has been little formal research to date exploring how gender bias may be impacting the careers of women in the field. In this commentary, we discuss the results of an anonymous, online survey that assessed perceived effects of gender bias and sexual harassment on professional development among women dermatologists. The large majority of respondents reported experiencing significant gender-based obstacles to career advancement in either their current or past practice settings. Lack of equal professional support between men and women and discrimination based on parental status were commonly noted themes. A majority of respondents also reported having experienced some form of sexual harassment in the workplace. These trends, while not unique to the field of dermatology, are unacceptable and need to be confronted and rectified. Promoting gender equity in dermatology is important for clinicians, patients, and the future of dermatology.

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Gender bias and harassment in medicine

Gender bias and sexual harassment are widespread and well documented in both medical training and medical practice (Feldman et al., 1997; Carr et al., 2000; Jagsi et al., 2016; Jagsi, 2017; Bates et al., 2018; DeWane et al., 2019). Studies have demonstrated that although more women than men now enter medical school (AAMC, 2017) and women have made up almost half of matriculating medical students since the early 1990s (GWIMS, 2016) they remain vastly underrepresented in leadership positions, especially in academic medicine (GWIMS, 2016; AAMC, 2019; Shinohara, 2019). Women are less likely to be authors, peer reviewers, or editors at academic journals, are underrepresented among grand rounds speakers across disciplines, and are more likely than male physicians to be introduced informally in professional settings (Boiko et al., 2017; Files et al., 2017; Lundine et al., 2018; Schwalbe and Fearon, 2018). A recent cross-sectional survey of 1,719 medical faculty members revealed that women were significantly more likely than men to report perceptions of gender bias in their careers, and 30% of female respondents reported experiencing sexual harassment (Jagsi et al., 2016).

The gender gap in dermatology

In dermatology specifically, considerable attention has been paid to the “gender gap” in recent years, especially as it pertains to academic practice. Although the proportion of female dermatologists has been increasing for decades, women remain underrepresented in senior faculty and leadership positions (Feramisco et al., 2009). Women in dermatology are more likely to have stereotypically “female” leadership roles as clinicians and educators, receive significantly less funding from the National Institutes of Health (NIH) than their male colleagues, and are more likely to have considered leaving academia altogether (Wehner et al., 2019).

Several studies have aimed to explore this disparity, often focusing on metrics of productivity that typically influence academic promotion. A 2009 study of authorship across 3 major dermatology journals, for example, found that female authorship is steadily increasing, with women making up 48% of first authors and 31% of senior authors at the time of publication (Feramisco et al., 2009). The proportion of women speakers at American Academy of Dermatology (AAD) annual meetings has also been increasing over time (Mujahid et al., 2019). Other recent articles focus on burnout, lack of mentorship, and issues of work-life balance as potential contributors to the “leaky pipeline” (a phrase referring to the attrition of women physicians along the path from trainee to junior faculty to senior leadership) (Margosian, 2017; Shinohara, 2019).

Despite a growing focus on gender equity within the field, there has been little formal study of the role gender bias may play in

☆ The survey study referenced in this commentary was approved by the University of Connecticut's Institutional Review board and designated as exempt on 9/26/2019.

influencing career success for women in dermatology. Published studies to date focus on “objective” metrics of productivity rather than what women experience in daily practice, and almost all studies have been centered on academic dermatology, an approach that neglects the experiences of the many women dermatologists in private practice throughout the US. To truly achieve gender equity in dermatology, issues of gender bias and harassment across all practice settings must be explored and confronted.

The perceived impact of gender bias & harassment in dermatology

In an effort to better understand the current impact of gender bias and gender-based harassment in dermatology, we recently surveyed a broad segment of female dermatologists across multiple practice settings. Our anonymous, online survey was adapted from previously validated tools designed to assess experiences of gender bias and sexual harassment in academic medicine (Carr et al., 2000; Jaggi et al., 2016). After IRB approval, members of the Association of Professors of Dermatology (APD) and the Women's Dermatology Society (WDS) were invited to participate via email, and responses were collected between October and December, 2019.

In total, we received 521 responses (estimated response rate of 33% based on approximate APD and WDS membership). The demographic characteristics and practice settings of survey respondents are shown in Table 1. More than half of respondents (55%, 268/486) reported perceiving current gender-based biases or obstacles to career success/satisfaction as dermatologists in their work environment, and 68% of respondents (320/473) reported perceiving such biases or obstacles in the past. This held true across practice settings, with female dermatologists outside of academics perceiving current or past gender-based biases or obstacles to career success/satisfaction at a rate of 53.5% (53/99). Half of respondents (50%, 236/472) reported possibly, probably, or definitely having been left out of opportunities for professional advancement based on their gender, and 26.6% (122/459) of respondents felt they had possibly, probably, or definitely been passed over for a promotion. Almost half of respondents who had been pregnant believed that their pregnancy had negatively impacted their career (47.8%, 151/316). Sexual harassment was also common, with 62.9% (291/463) of women having encountered sexist remarks/behavior or unwanted sexual comments, attention, or advances by a superior or colleague. Very few of these incidents were reported (Fig. 1).

Our data, as well as the comments made by many of the survey respondents, suggest that perceptions of gender bias and gender-based harassment may be widespread among women in dermatology. Common themes noted by dermatologists who perceived gender-based obstacles to success in their work environments fell broadly into two categories: 1) inadequate professional support and 2) discrimination based on pregnancy or parental status. Examples of inadequate professional support noted by respondents included a lack of women in leadership positions (and therefore a paucity of role models and potential mentors), unequal opportunities for promotion, unequal pay, and less research support. One respondent succinctly commented, “Men [are] promoted more, supported more, and paid more.” Of 295 comments submitted in response to questions about current or past perceptions of gender-specific biases or obstacles to career success or satisfaction, almost one third (84/295, 28.0%) involved preferential promotion or leadership opportunities for men over women.

Sometimes referred to as the “broken rung,” the issue of opportunity imbalance is well documented in other fields. A recent report from McKinsey & Company analyzing data from over 600 companies and survey results from over a quarter of a million people revealed that lack of support even in early career undermines

Table 1
Demographic and practice characteristics of survey respondents.

Age	N = 508
25–35	183 (36.02%)
36–45	165 (32.48%)
46–55	62 (12.20%)
56–65	61 (12.00%)
66–75	35 (6.89%)
76+	2 (0.39%)
Gender	N = 511
Female	509 (99.60%)
Male	0 (excluded from analysis)
Nonbinary	1 (0.2%)
Transgender	1 (0.2%)
Other	0 (0%)
Sexual Orientation	N = 505
Straight	492 (97.43%)
Bisexual	5 (0.99%)
Gay or Lesbian	7 (1.39%)
Other	1 (0.20%)
Race	N = 510
White	375 (73.53%)
African American	24 (4.71%)
American Indian or Alaska Native	0 (0%)
Asian	76 (14.90%)
Native Hawaiian or Pacific Islander	0 (0%)
Hispanic	11 (2.16%)
Biracial	5 (0.98%)
Multiracial	8 (1.57%)
Other	11 (2.16%)
US Region	N = 502
Northeastern US	155 (30.88%)
Central US	120 (23.90%)
Southern US	131 (26.1%)
Western US	96 (19.21%)
Current practice setting	N = 504
Academic practice	287 (56.94%)
In-training (resident or fellow)	118 (23.41%)
Private practice	63 (12.5%)
Multispecialty group	14 (2.78%)
Private equity-owned practice	9 (1.79%)
Military practice	1 (0.2%)
Other	12 (2.38%)

women's professional development. They note that although the “glass ceiling” preventing women from reaching senior leadership positions is more often discussed, unequal opportunities for advancement in early and mid-career (the “broken rung”) are equally significant (Huang et al., 2019). Many of the respondents to our survey echoed this sentiment, noting that despite their aspirations, they felt they had fewer opportunities for advancement than men did at equal stages in their careers.

Examples of discrimination based on pregnancy or parental status included inadequate or nonexistent maternity leave, hostility towards women who became pregnant, and widespread assumptions that women with children were unsuited for or uninterested in leadership opportunities or career advancement. Some respondents reported open resentment of their pregnancies; for example, “I was told by fellow residents that my pregnancies plague[d] the residency.” Others reported dismissal of their career potential by colleagues or supervisors based on family status, at times subtle (“My male colleagues suggested I was too busy at home to do committee or leadership work”) and other times more overt (“[I] was passed over for a [promotion]...because I had young children and would have to work nights and weekends and was that fair to my family”). Additional representative comments related to both inadequate professional support and discrimination based on pregnancy and parental status are presented in Fig. 2.

Taken together, these two types of gender-based discrimination make for a profoundly difficult professional environment for

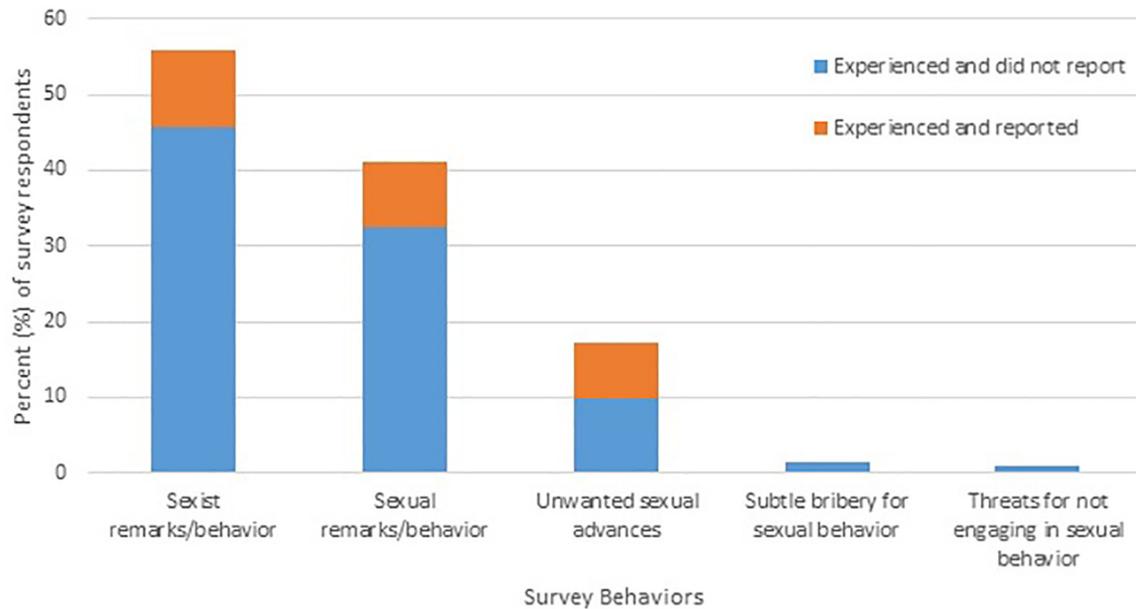


Fig. 1. Percent of all survey respondents experiencing each behavior. Proportions of respondents who did and did not report the incident are shown.

women. Without adequate professional support (in the form of equal salary, resources, and leadership opportunities), it is difficult for women to advance in their careers. This exacerbates the lack of women in leadership positions in dermatology, which persists despite the fact that 60% of all current dermatology trainees are female (Shinohara, 2019). The “motherhood penalty” (a phrase that refers to the systematic disadvantages faced by mothers in the workplace) further compounds this problem. It is based on the assumption that mothering is incompatible with career success (Correll et al., 2007; Kitroeff and Silver-Greenberg, 2018), and it is known to affect women in all fields of work, including medicine (Halley et al., 2018). Women are perceived as less competent and less dedicated after having children, while men are actually more likely to be hired and receive higher pay (also known as the “fatherhood bonus”) (Miller, 2014). When women who choose to have children are assumed to have different priorities than their male peers, they are unfairly passed over for opportunities that may be well deserved and could benefit their careers.

Sexual harassment further undermines female dermatologists in the workplace. A majority of our survey respondents had experienced some form of sexual harassment, most often in the form of sexist remarks or behavior (for example, “Women [are] not suited for a career in academia”). Very few instances of sexual harassment were reported to anyone, and in some occurrences, women commented that complaints were ignored by their organization’s leadership. Despite low rates of reporting, many respondents felt that their experiences had negatively impacted their confidence in themselves as professionals and/or their career advancement.

To our knowledge, our survey was one of the first attempts to formally explore the impacts of gender bias and discrimination in dermatology. While our results suggest that gender bias may be a pervasive problem, this study had several important limitations. First, response rate was relatively low, and as a result, our sample size relative to the general population of dermatologists practicing in the United States was small. Additionally, despite our efforts to reach beyond the academic setting, women dermatologists in private practice were underrepresented in our sample. Second, all questions in our survey were optional, leading to some incomplete responses. Third, although we collected basic demographic information including gender identity and sexual orientation, the expe-

riences of transgender dermatologists or discrimination based on LGBTQ identification may not have been fully captured. Finally, as with all survey studies, our study was limited by potential response bias.

Next steps

Despite the limitations discussed above, we believe our results suggest the need for further study of this issue as well as urgent and systemic change to support women in dermatology. Such changes should include efforts to ensure:

- Pay equity (across all practice settings).
- Equal advancement and promotion opportunities for women.
- Equal representation of women in dermatology leadership, especially in academic departments and influential professional organizations and journals that help set the tone for the field as a whole.
- Adequate and flexible maternity leave policies, as well as written policies against discrimination based on pregnancy or parental status.
- Robust, reliable, and easily accessible reporting systems for sexual harassment and gender-based discrimination that are followed up with appropriate investigation and plans of action if needed.

When women are systematically disadvantaged in their careers based on gender, we risk silencing the voices of many talented and dedicated dermatologists who have a tremendous amount to offer to our patients, our colleagues, and the field of dermatology as a whole.

Conclusions

Gender bias is widely perceived to negatively impact the careers of female dermatologists, both in academics and other practice settings. Inadequate professional support, discrimination based on pregnancy and parental status, and sexual harassment lead to decreased career opportunities for women and limit their professional advancement. Acknowledging these issues is a critical

Comments related to inadequate professional support	Comments related to discrimination based on pregnancy or parental status
"A younger male associate with less experience [was] offered a stipend while I was expected to do [the work] for free."	"I feel that I am less likely to be afforded leadership opportunities...because of my gender and the fact that I have young children."
"I left academic practice in part because I was passed over for multiple opportunities (running meetings, being lead investigator for IRBs in my area), with those opportunities instead being given to younger male colleagues."	"Lack of flexibility regarding working hours, lack of representation at senior levels, and lack of trust placing women with families in leadership roles."
"Seeing discrepancies in salaries, promotions, and opportunities based on gender over the years has been very discouraging."	"When I was a resident, I would overhear rumors of comments made by older <u>derms</u> about women getting pregnant and not working full-time as a dermatologist and 'what a waste' on a slot."
"I routinely see male providers offered extra leadership and income-generating opportunities. In addition, in our faculty meetings, comments from men are better received than comments from women."	"Negative or sarcastic comments towards previous residents/staff becoming pregnant during training."
"Came in at different compensation package than male counterpart with equal level of training (did not find this out until one year into practice)."	"I have been told, 'this is not the right time to pursue leadership positions as a young mother.'"
"There remains a pay differential between [males] and females of equal rank. Additionally, females of equal academic rank on average do more clinic time than their male counterparts."	"Many years ago, my chair told me to quit doing research because I had 3 kids and it was enough to be a clinician."

Fig. 2. Selection of representative survey comments relating to inadequate professional support for women (Left) and discrimination based on pregnancy/parental status (Right).

first step in promoting gender equity within dermatology, and concrete steps should be taken across all practice settings to ensure that female dermatologists receive the same support and resources as their male colleagues.

Funding sources

None.

Conflicts of interest

The authors have no conflicts of interest to declare.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijwd.2020.07.010>.

References:

AAMC. More Women Than Men Enrolled in U.S. Medical Schools in 2017 [Internet]. AAMC. 2017 [cited 2019 Dec 30]. Available from: <https://www.aamc.org/news-insights/press-releases/more-women-men-enrolled-us-medical-schools-2017>.
 AAMC. The Majority of U.S. Medical Students Are Women, New Data Show [Internet]. AAMC. 2019 [cited 2019 Dec 19]. Available from: <https://www.aamc.org/news-insights/press-releases/majority-us-medical-students-are-women-new-data-show>.

- Bates CK, Jagsi R, Gordon LK, Travis E, Chatterjee A, Gillis M, et al. It is time for zero tolerance for sexual harassment in academic medicine. *Acad Med* 2018;93(2):163–5.
- Boiko JR, Anderson AJM, Gordon RA. Representation of women among academic grand rounds speakers. *JAMA Intern Med* 2017;177(5):722–4.
- Carr PL, Ash AS, Friedman RH, Szalacha L, Barnett RC, Palepu A, et al. Faculty perceptions of gender discrimination and sexual harassment in academic medicine. *Ann Internal Med* 2000 Jun 6;132(11):889.
- Correll SJ, Benard S, Paik I. Getting a job: is there a motherhood penalty? *Am J Sociol* 2007;112(5):1297–339.
- DeWane ME, Mattessich S, Wu R, Whitaker-Worth D. A Survey Study of Resident Experiences of Sexual Harassment during Dermatology Training. *Journal of the American Academy of Dermatology* [Internet]. 2019 Jul 13 [cited 2019 Sep 19];0(0). Available from: [https://www.jaad.org/article/S0190-9622\(19\)32381-3/abstract](https://www.jaad.org/article/S0190-9622(19)32381-3/abstract).
- Feldman P, Jones S, Shrier I. Eradicating sexual harassment during medical training. *Acad Med* 1997 Dec;72(12):1026.
- Feramisco JD, Leitenberger JJ, Redfern SI, Bian A, Xie X-J, Resneck JS. A gender gap in the dermatology literature? Cross-sectional analysis of manuscript authorship trends in dermatology journals during 3 decades. *J Am Acad Dermatol* 2009 Jan 1;60(1):63–9.
- Files J, Mayer A, Ko M, Friedrich P, Jenkins M, Bryan M, et al. Speaker introductions at internal medicine grand rounds: forms of address reveal gender bias. *J Women's Health* [Internet]. 2017. May 1 [cited 2019 Dec 19]; Available from: <https://www.liebertpub.com/doi/abs/10.1089/jwh.2016.6044>.
- Halley MC, Rustagi AS, Torres JS, Linos E, Plaut V, Mangurian C, et al. Physician mothers' experience of workplace discrimination: a qualitative analysis. *BMJ* 2018;12 k4926.
- Huang J, Krivkovich A, Starikova I, Yee L, Zanoschi D. Women in the Workplace 2019 | McKinsey [Internet]. 2019 [cited 2019 Dec 26]. Available from: <https://www.mckinsey.com/featured-insights/gender-equality/women-in-the-workplace-2019>.
- Jagsi R. Sexual Harassment in Medicine – #MeToo. *New England Journal of Medicine* [Internet]. 2017 Dec 13 [cited 2018 Sep 6]; Available from: https://www.nejm.org/doi/10.1056/NEJMp1715962?url_ver=Z39.88-2003&rft_id=ori%3Arid%3Acrsref.org&rft_dat=cr_pub%3Dwww.ncbi.nlm.nih.gov.
- Jagsi R, Griffith KA, Jones R, Perumalswami CR, Ubel P, Stewart A. Sexual harassment and discrimination experiences of academic medical faculty. *JAMA* 2016 May 17;315(19):2120–1.
- Kitroeff N, Silver-Greenberg J. Pregnancy discrimination is rampant Inside America's biggest companies. *The New York Times* [Internet]. 2018 Jun 15 [cited 2019 Dec 19]; Available from: <https://www.nytimes.com/interactive/2018/06/15/business/pregnancy-discrimination.html>.
- Lundine J, Bourgeault IL, Clark J, Heidari S, Balabanova D. The gendered system of academic publishing. *The Lancet* 2018;391(10132):1754–6.
- Margosian E. Blazing the Trail: Women in dermatology continue to break ground while challenges still lie ahead. *Dermatol World* [Internet]. 2017 [cited 2020 Jul 16]; Available from: https://www.womensderm.org/UserFiles/file/blazingthetrail_Article.pdf.
- Miller CC. The motherhood penalty vs. the fatherhood bonus. *The New York Times* [Internet]. 2014 Sep 6 [cited 2020 Jul 17]; Available from: <https://www.nytimes.com/2014/09/07/upshot/a-child-helps-your-career-if-youre-a-man.html>.
- Mujahid N, Song H, Li DG, Joyce C, Mostaghimi A. Trends in gender of speakers at the American Academy of Dermatology Annual Meeting, 2010–2018. *JAMA Dermatol* 2019 01;155(3):383–4.
- Schwalbe N, Fearon J. Time's up for journal gender bias. *The Lancet* 2018 Jun 30;391(10140):2601–2.
- Shinohara M. The gender gap in dermatology: where are we now? [Internet]. *Pract. Dermatol*. 2019 [cited 2019 Dec 26]. Available from: <https://practicaldermatology.com/articles/2019-jan/the-gender-gap-in-dermatology-where-are-we-now/pdf>.
- Wehner MR, Naik HB, Linos E. Gender equity in clinical dermatology—reason for optimism. *JAMA Dermatol* 2019;155(3):284–6.
- The State of Women in Academic Medicine: The Pipeline and Pathways to Leadership, 2015–2016. Statistics – Group on Women in Medicine and Science (GWIMS) – Member Center – AAMC [Internet]. [cited 2018 Dec 30]. Available from: <https://www.aamc.org/members/gwims/statistics/489870/stats16.html>.

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Received 15 May 2020

Received in revised form 17 July 2020

Accepted 23 July 2020