Received: 27 April 2023 | Revised: 15 June 2023 | Accepted: 22 June 2023

DOI: 10.1002/lio2.1217

ORIGINAL RESEARCH

Laryngoscope Investigative Otolaryngology

Investigation of gender-based needs in academic otolaryngology

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Abstract

Objective: Gaps in gender-based equity persist in academic otolaryngology. Here we present a needs-based assessment of otolaryngology faculty and trainees regarding facilitators and barriers to professional satisfaction and career development in academic medicine.

Methods: A qualitative study of otolaryngology faculty, trainees, and administrators who identify as women at an academic tertiary care center was performed from 2020 to 2021 using focus groups and semi-structured interviews. Five confidential, virtual focus group sessions moderated by a third-party executive coach were audio-taped, transcribed, and reviewed for thematic content.

Results: Of 48 women invited, 77% participated (18 faculty/administrative leaders, 10 residents/fellows, 4 audiologists). Participants noted direct patient care, support from colleagues who identify as women, and the transition to virtual meetings as facilitators of current professional satisfaction. Five themes emerged as barriers to workplace satisfaction and career development including (1) limited professional schedule flexibility, (2) competing commitments such as childcare exacerbated by pandemic, (3) lack of visible departmental leadership who identify as women, (4) perceived lack of organic sponsorship within subspecialty divisions, and (5) frequent identity-associated microaggressions from patients and staff outside the department. Strategies identified for improving gender-based equity included (1) promoting department-wide awareness of workplace gender-based differences, (2) implicit bias training within established programming such as grand rounds conferences, and (3) novel faculty programming such as leadership development training and formal junior faculty mentorship.

Conclusion: Confidential needs-based assessment of otolaryngology faculty and trainees identified both persistent gaps and strategies to enhance recruitment,

support career development, and grow professional satisfaction of women within academic otolaryngology.

Level of Evidence: 3.

KEYWORDS
gender in academic medicine, gender-based equity, women in otolaryngology

1 | INTRODUCTION

Gaps in gender-based equity in compensation, access to resources, and leadership roles persist within the field of academic otolaryngology. Studies have demonstrated that women otolaryngologists are paid 77 cents on the dollar compared to male colleagues, with the gender pay gap persisting after accounting for age, experience, clinical revenue, and research productivity.[1] An analysis of University of Michigan Medical School faculty members from 2005 to 2015 identified that women were significantly less likely to advance from assistant professor to associate professor and held fewer tenure-track or fully tenured positions. Women faculty also reported lower professional satisfaction compared to male colleagues.[2] The national promotion gap of women faculty in medicine has not meaningfully changed in the last three decades.[3]

These gaps in gender-based equity affect professional satisfaction, retention, and recruitment of a diverse workforce. Given that a diverse provider workforce has been associated with improved patient safety, surgical outcomes, and access to evidenced-based care, workplace gender-based equity remains an important focus of investigation within academic medicine.[4–8]

The objective of this study is to perform a needs-based assessment of otolaryngology faculty and trainees who identify as women at an academic tertiary care center regarding (1) the institution's cultural climate and (2) facilitators and barriers to professional satisfaction and career development in academic medicine within this context.

2 | METHODS

A qualitative study of otolaryngology faculty, trainees, and administrators who identify as women at an academic tertiary care center was performed from 2020 to 2021 using focus groups and semi-structured interviews. All invited study participants were informed of the anonymous nature of the findings. Five confidential, virtual, hour-long focus group sessions were moderated by a third-party executive coach with extensive experience working with academic surgical departments on needs-based assessments. Five sessions were conducted to facilitate maximum participation given the study participants busy clinical schedules. Focus groups were audio-taped and transcribed verbatim. The following discussion questions were chosen by an executive coach as these had been previously used in faculty engagement programming and surgical coaching within academic medicine and were relevant to the research question.[9,10] These were provided in advance for reflection and preparation with a post-interview survey administered for additional feedback not expressed during semi-structured interviews.

1. *What is most satisfying about your work (and life) right now? What is making that possible?*
2. *What is most challenging about your work (and life) right now? What obstacles or other factors are contributing to that?*
3. *What do you believe the Department could do/offer/change to support you in being even more effective and satisfied?*
4. *Do you see your needs as fundamentally different or the same from similar (stage, age, sub-specialty) male colleagues? How so?*

Precautionary measures were taken to ensure confidentiality for participants including member-checking with participants such that discrete data were reviewed and approved for publication by the participant. Informed consent was obtained from all study participants. The study was approved by the Michigan Medicine Medical Institutional Review Board with reporting according to Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines (See Supplemental Table 1).[11]

Reflexive thematic analysis, as outlined by Braun and Clarke, was performed to facilitate qualitative data interpretation in a manner that accounted for the subjective nature of participant accounts and reflexive influence of researcher interpretations, as study investigators were primarily otolaryngology faculty and trainees who identified as women.[10] Theoretical assumptions addressed included adopting a constructionist epistemology and experiential orientation to appreciate meaningfulness and meaning as opposed to recurrence alone as primary criteria for theme identification in the coding process. Additionally, inductive analyses were performed such that data were open-coded and respondent meanings were emphasized as relevant to the research questions. Semantic coding of the data was prioritized over latent coding to provide a descriptive analysis of the data to ensure conceptual coherence with research question. With these assumptions, the six-phase recursive analytical process as outlined by Braun and Clarke was performed with (1) familiarization of the data with manual coding of interviews by one study investigator, (2) generating initial codes based on active listening of interviews/review of transcripts, (3) generating themes through thematic mapping and post-interview discussions with three study investigators, (4) review of themes based on both recurrence in the data and as relevant to the research question, (5) defining and naming the themes to be concise

and informative by all study investigators, and (6) production of the final report.[12,13]

3 | RESULTS

Study participants included all otolaryngology faculty, trainees, and administrators at an academic tertiary care center who identify as women. Of 48 women invited, 77% participated including 15 clinical faculty and administrative leaders, 3 research faculty, 10 trainees including residents and fellows, and 4 audiologists. Thematic analysis of current professional satisfaction identified three themes as positive facilitators: direct patient care, support from colleagues who identify as women, and increased flexibility afforded by the transition from in-person to virtual departmental and division meetings such as grand rounds, didactics, and faculty meetings. Participants described direct patient contact as fulfilling and meaningful, despite also describing microaggressions regarding the provider's identity, professional expertise, and surgical experience. Participants also universally identified other colleagues who identify as women, often in other divisions or departments, as important support systems within the workplace. Multiple interviewees highlighted that the transition to virtual meetings outside of standard business hours, such as 7 a.m.–8 a.m. weekly grand rounds and evening faculty meetings, facilitated responsibilities outside of work such as childcare and providing transportation to family members.

As summarized in Table 1, five themes emerged as barriers to workplace satisfaction and career development including (1) limited flexibility in professional schedules, specifically clinic schedules, which were often at capacity or overbooked and (2) competing commitments such as family and childcare which were further exacerbated by the COVID-19 pandemic. Other themes identified included (3) perceived lack of organic mentorship and sponsorship within subspecialty divisions without women colleagues, and (4) lack of visible, current leadership who identify as women within the department to serve as role models and advocates. Multiple interviewees referenced women who were formerly in department leadership roles as primary role models and mentors. Finally, (5) frequent identity-associated microaggressions from patients and hospital staff outside the department was also identified as a barrier to workplace satisfaction.

Strategies identified for improving gender-based equity included (1) promoting department-wide awareness of gender-based differences in the workplace such as microaggressions and competing demands outside of work, (2) implicit bias training within established programming such as virtual grand rounds conference (as to avoid additional opt-in meetings which reduce professional schedule flexibility), and (3) new faculty development programming such as leadership development training and formal mentorship for junior faculty (Table 2).

4 | DISCUSSION

This needs-based assessment of current otolaryngology faculty and trainees who identify as women within an academic tertiary care center identified both persistent gaps and strategies to support career

TABLE 1 Thematic analysis summary of barriers to workplace satisfaction and career development.

	Barrier to workplace satisfaction	Illustrative quote
1.	Limited flexibility in professional schedules	"*There are a lot of rules here, which make it very difficult to have a flexible job as a woman, and as somebody who has other responsibilities outside of their position… things tend to get overbooked so there's no consistency or certainty that you can be home at a certain time to pick your children up, and so on.*"
2.	Competing commitments such as family and childcare exacerbated by the pandemic	"*We have to recognize that not all of us are exactly the same so schedules that worked for a long time for men, maybe don't work quite as well for, you know, for a larger group of women in the department and our different perspectives. Some of us have children, some of us don't. Some of us have grown children, some of us have children in school, and these commitments fall on us.*"
3.	Lack of organic mentorship and sponsorship within subspecialty divisions	"[*Work*] *has been a very isolating experience because I don't have any day-to-day female colleagues in my division. All my colleagues, including those people that I mentor, are men, and frankly, I never really got mentored.*"
4.	Lack of visible leadership within the department who identify as women	*I think we need broad, diverse voices in general, at the table. Like women, people of color, and so on. Just a lot of different voices in the leadership. The thing that cracks me up about academia is when there is an open leadership position, the recruiting approach is like "oh I know Bob." Well, it was strange that "Bob" looks like that other leader "Joe." "Joe" looks like, you know, "Dave." You get a bunch more "Bob," "Joe," and "Dave" as your potential applicants and wonder why there is not more diversity in leadership.*
5.	Frequent identity-associated microaggressions from patients and hospital staff outside the department	"*Getting called a nurse everyday by patients despite my long coat, letters after my name on my lapel, and name badge with 'physician' in big bold letters does take a toll. But it is experiences with my workplace team like having to repeat myself multiple times in the operating room to receive an instrument, but then my male resident asks for it once and receives the instrument immediately – that gets to me.*"

TABLE 2 Thematic analysis summary of strategies identified for improving gender-based equity.

	Current driver of professional satisfaction	Strategy identified for improving professional satisfaction and gender-based equity
1.	Direct patient care	Promoting department-wide or hospital-wide awareness of gender-based differences in the workplace such as microaggressions and competing demands outside of work.
2.	Support from colleagues who identify as women	New faculty development programming such as leadership development training and formal mentorship for junior faculty.
3.	Increased flexibility afforded by the transition to virtual meetings	Implicit bias training within established programming such as grand rounds conferences.

development in the pursuit of gender-based equity within the field. Lack of professional schedule flexibility, diversity of leadership, and access to sponsorship were persistent themes identified as barriers of workplace satisfaction and career development.

The findings are particularly notable within a large otolaryngology department with 48 providers, researchers, and administrators who identify as women, with over 50% of the residency training program identifying as women. 47% of faculty at the institution are women and 52% of all residents and fellows at the institution also identify as women. 48% of hired tenure track faculty in the last 4 years were women. 6% of faculty and 10% of trainees identify as underrepresented in medicine, specifically Black/African America, Hispanic/Latino, and American Indian. This needs-based assessment occurred within the context of a longstanding legacy of championing women within the field of otolaryngology both as surgeons and leaders.

Prior studies have corroborated the lack of women in leadership positions within otolaryngology and the impact on recruitment and career development of a diverse workforce. Of 90 academic residency programs included in a recent study, only 4 (4.4%) had a department chair who identified as a woman and 17 (18.9%) had a woman residency program director.[14,15] Women faculty are more likely to work at institutions with female department chairs, and programs with greater representation of women faculty are more likely to match women residents.[16,17] Existing disparities have been further exacerbated by the COVID-19 pandemic, which has highlighted persistent societal norms of women as default caregiver; women have dropped out of academic medicine at significantly greater rates than men and submissions of scholarly papers to the medical literature during the pandemic increased by men but decreased by women.[18,19]

An important distinction between the terminology of equality and equity is that while equality refers to everyone receiving *the same* treatment and support, equity is defined as everyone receiving *equal opportunity* to achieve success by getting the individualized support needed. Gender-based equity initiatives strive to correct existing disparities such as pay gaps and leadership representation with programming that supports equal opportunity, which is often distinct from equal treatment alone.

Gender bias in the workplace has repeatedly been identified as a both a major cause of burnout and barrier to promotion for women surgeons.[14,19] While traditional academic promotion pathways often narrowly define productivity by number of peer-reviewed publications and external recognition, women physicians have been shown to be solicited disproportionately for time-intensive institutional service such as committees and trainee mentorship that do not fit into narrowly-defined productivity metrics required for promotion.[17,18] Negotiation and self-advocacy, characteristics important to career advancement, have also been perceived negatively when illustrated by women and rewarded when demonstrated by men.[3,4] Women academic otolaryngologists of senior rank have been shown to exceed the research productivity of their male counterparts, and describe an unwavering commitment to academic medicine that may preclude the "elusive work-life balance."[20,21]

Strategies identified by study participants for improving gender-based equity were notably all department-wide initiatives, as opposed to programming focused specifically on women and/or underrepresented minority employees, to raise awareness of gender-based differences in the workplace, implicit biases, and offer formal, high-quality mentorship for all junior faculty. Study participants repeatedly highlighted the need for broader awareness of workplace discrimination to engender male sponsorship and support for evidence-based interventions designed to close the gender gap within academic medicine. Implicit bias training and sessions dedicated to raising awareness of the effect of gender stereotypes within the workplace were recommended within established forums such as grand rounds, resident didactics, and faculty meetings to ensure a broad audience and avoid adding to the already long hours and limited time flexibility described by study participants. The goal of such programming was identified as establishing gender equity as a shared responsibility within institution culture.

While the primary study limitation is its single academic tertiary care center setting, the methodology of the study, with inclusion of a third-party executive coach to conduct a confidential needs-based assessment, can be replicated across institutions to offer in-depth qualitative data to better understand institution-specific deficits in equity and inclusion. While intersectionality of race and sexual orientation also impact workplace experiences, the contributions of individual identities beyond gender were not explored within the scope of this study and offers a focus of further investigation.

Additionally, participants were limited to employees who identify as women given the scope of the study and objective to create a confidential environment for exploring gender-specific professional needs. However, many of the challenges described by study participants are anecdotally also experienced by those who do not identify as women. Ultimately, the strategies recommended are department-wide and therefore would be expected to benefit men who may be

experiencing these same challenges to professional satisfaction as well. Since the conclusion of the study period, suggested interventions highlighted by study participants have been incorporated into broader efforts to improve the cultural climate of the department with structured programming such as diversity and inclusion-focused grand rounds and valuing institutional contributions such as mentorship and administrative roles within the context of promotion and salary support.

As we seek to make medical institutions more representative of patient populations in the pursuit of improved patient safety and outcomes, promotion of equity in otolaryngology requires institutional commitment of scarce resources such as time and funding, as well as continuous monitoring to enhance recruitment, support career development, and grow professional satisfaction of a diverse workforce.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Yalamanchi P, Dombrowski J, Pynnonen MA, Malloy KM, Prince ME, Kupfer RA. Investigation of gender-based needs in academic otolaryngology. *Laryngoscope Investigative Otolaryngology*. 2024;9(2):e1217. doi:10.1002/lio2.1217