

## A "Ton of Feathers": Gender Discrimination in Academic Medical Careers and How to Manage It

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### ABSTRACT

**Purpose:** To evaluate the experience of gender discrimination among a limited sample of women in academic medicine, specifically, the role of discrimination in hindering careers, coping mechanisms, and perceptions of what institutions and leaders of academic medicine can do to improve the professional workplace climate for women.

**Methods:** In-depth, semistructured telephonic individual interviews of 18 women faculty who experienced or may have experienced discrimination in the course of their professional academic medical careers from 13 of the 24 institutions of the National Faculty Survey. A consensus taxonomy for classifying content evolved from comparisons of coding. Themes expressed by multiple faculty were studied for patterns of connection and grouped into broader categories.

**Results:** Forty percent of respondents ranked gender discrimination first out of 11 possible choices for hindering their career in academic medicine. Thirty-five percent ranked gender discrimination second to either "limited time for professional work" or "lack of mentoring." Respondents rated themselves as poorly prepared to deal with gender discrimination and noted effects on professional self-confidence, self-esteem, collegiality, isolation, and career satisfaction. The hierarchical structure in academe is perceived to work against women, as there are few women at the top. Women faculty who have experienced gender discrimination perceive that little can be done to directly address this issue. Institutions need to be proactive and recurrently evaluate the gender climate, as well as provide transparent information and fair scrutiny of promotion and salary decisions.

**Conclusions:** According to this subset of women who perceive that they have been discriminated against based on gender, sexual bias and discrimination are subtly pervasive and powerful. Such environments may have consequences for both women faculty and academic medicine, affecting morale and dissuading younger trainees from entering academic careers. Medical schools need to evaluate and may need to improve the environment for women in academe.

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## INTRODUCTION

**D**ESPITE TWO DECADES OF SIGNIFICANT NUMBERS of women in academic medicine, few women have reached leadership or senior positions.<sup>1,2</sup> Only 12% of full professors, 8% of department chairs, and 3% of medical school deans are women.<sup>3</sup> A number of studies suggest that gender discrimination contributes to the lack of advancement of women in academic medicine,<sup>4,5</sup> as well as negatively affecting career satisfaction.<sup>6</sup> Disturbingly, gender discrimination is frequently reported in practice<sup>7,8</sup> and even more frequently in academic settings.<sup>6,9</sup> The full effects of gender discrimination on women faculty and their academic careers, however, have not been examined. Although significant efforts over the past decade have improved the environment for women in academic medicine, some women are still struggling with gender issues in the academic workplace. We used qualitative analysis techniques to evaluate the lived experience of gender discrimination among women in academic medicine. Often, what is useful for one group such as this ultimately benefits all academic faculty and could more broadly address the workplace environment in academic medicine. Specifically, we sought to understand (1) how women who have encountered gender discrimination characterize the environment in academic medicine for women, (2) the role of gender discrimination in hindering careers relative to other factors in academic medicine, (3) the nature of their most highly consequential episode of discrimination, (4) the ways it affected the faculty member and her career, (5) how these women cope with discrimination in their careers, and (6) their perceptions of what institutions and leaders of academic medicine can do to improve the professional, workplace climate for women.

## MATERIALS AND METHODS

In-depth, telephonic individual interviewing in a semistructured format was chosen as an appropriate data-gathering method for the qualitative assessment of faculty experience. The content of the telephone interview questions was derived from a review of the literature on gender discrimination in academic medicine and analysis of content from a preliminary medical faculty focus group on gender discrimination. The sample for

the discrimination focus group consisted of faculty identified from their response to a question in the 1995 National Faculty Survey<sup>10</sup>: Have you ever been left out of opportunities for professional advancement based on gender? Faculty with a response of 1, 2, or 3 on a scale of 1–5 (1 = yes, 2 = probably, 3 = possibly, 4 = not to my knowledge, and 5 = no) were eligible.

The focus group consisted of six women faculty, including three clinical and three basic science faculty. Focus group faculty were asked to describe the salient features of gender bias and gender discrimination, which for this group included lower salary, slower advancement, and less space as well as issues that are more difficult to quantify: less support, less cooperation, exclusion, being out of the network, isolation, avoidance, patronization, lack of recognition of both their work and their status, lower expectations of women, being a target of criticism without apparent reason, dumping syndrome (being asked to do work that no one else wants to do), and overall, the creation of a more hostile environment for women. Focus group faculty were also asked about critical situations for gender discrimination, negative career consequences, and mechanisms for coping with gender discrimination. Focus group proceedings were audiotaped, transcribed, and analyzed by five readers, who identified key words, phrases, and topics, then grouped them by consensus into major themes. The information from the focus group and the literature review provided the basis for the design of the semistructured telephone survey instrument. Final sample size for the in-depth interviews was determined by the usual rule of sufficiency—that is, when none of the analysts recognized new, unique content in reviews of several additional transcripts, contacting further faculty for interviews was stopped.<sup>11</sup>

Eighteen faculty members from 13 institutions of the original Robert Wood Johnson Study were interviewed between March and June of 2000. Faculty interviewees were chosen on the basis of their answer to the question in the National Faculty Survey<sup>10</sup> as identified focus group faculty. In addition, faculty were stratified by rank and degree status (M.D./Ph.D.), resulting in a sample of 18 female faculty, 8 from private and 10 from public institutions, including 8 Ph.D. faculty and 10 M.D. faculty, with 6 professors, 8 associate professors, 3 assistant professors, and 1 instructor. All interviews were conducted by members of the

research team, including medical faculty (P.L.C.) and staff at the New England Research Institutes (C.C.). The study was approved by the Human Subjects Review Committee of the Massachusetts General Hospital and by the Institutional Review Board at the New England Research Institutes. Informed consent was obtained from all participants. Copies of the questionnaire were sent to faculty in advance of the telephone interview so they could complete the closed-ended questions prior to the telephone interview and have sufficient time to ponder their responses to the open-ended queries in advance.

Faculty were asked to rank-order the importance of gender discrimination in hindering their career relative to other factors affecting academic careers for (1) themselves and (2) other faculty at the same institution; the nature of the experience of gender discrimination with the most substantial impact on their career; their ability to deal with the incident of discrimination; the effects of the experience on self-esteem, sense of collegial support, and career satisfaction; their prior preparation for such an experience; and sources of support. Basic demographic data were also solicited in the telephone interview. [Note: The complete agenda of questions for the telephone interview is available from the principal investigator (P.L.C.) on request.] Interviews were 30 minutes in duration on average and were audiotaped and later transcribed for review by the research team. Interviewers recorded pertinent, brief field notes during and after the interviews.

#### *Qualitative analysis*

Multiple readings of the transcripts were performed to identify major topic areas or themes revealed in the faculty's words, phrases, metaphors, and examples. A consensus taxonomy for classifying content emerged during successive meetings of the analyst reviewers where they compared the coding of each faculty transcript. Themes that were expressed by multiple faculty were studied for patterns of association and grouped into broader categories. The dominant ideas and patterns of connection were compared among subgroups of physicians by degree and rank.

#### *Quantitative analysis*

Descriptive statistics (means, standard deviations [SD], and correlations) were produced for

the closed-ended questions and examined using SAS. The small sample size precludes hypothesis testing. The quantitative items were used only to provide a description of the sample.

## RESULTS

### *Closed-ended questions*

Forty percent of the respondents ranked "gender discrimination" as the most important factor hindering their career in academic medicine from 11 possible choices. Thirty-five percent of the respondents chose "gender discrimination" second to either "limited time for professional work" or "lack of mentoring." The participants rated the extent to which a personal episode of discrimination affected them and their careers on a 7-point Likert scale (from 1 = not at all to 7 = to a great degree) for a number of items. Overall, the respondents rated themselves as poorly prepared by prior formal or informal training to deal with gender discrimination (mean 2.0, SD 1.6) and the impact of this discrimination on their professional careers as high (mean 5.0, SD 1.3).

The respondents noted the impact of the discrimination in both personal and professional arenas. In the personal arena, the respondents rated their "professional self-confidence" as worse (prior to the incident, mean 5.5, SD 1.1 vs. after the incident, mean 3.1, SD 1.7), their "self-esteem" as lower (prior to the incident, mean 5.4, SD 1.1 vs. after the incident, mean 3.6, SD 1.7), their sense that "academic medicine was fair to women" diminished (prior to the incident, mean 3.4, SD 1.6 vs. after the incident, mean 1.4, SD 0.70), their sense of "professional isolation" as higher (prior to the incident, mean 3.5, SD 1.4 vs. after the incident, mean 4.9, SD 1.9), and their "career satisfaction" as weakened (prior to the incident, mean 5.3, SD 1.1 vs. after the incident, mean 3.2, SD 1.9). In the professional arena, the respondents rated their "willingness to cooperate with others in everyday work" as worse (prior to the incident, mean = 6.2, SD = 0.98 vs. after the incident, mean = 4.4, SD = 1.6) and their "sense of working in a hostile environment" as heightened (prior to the incident, mean 3.4, SD 2.0 vs. after the incident, mean 5.6, SD 2.0). Fifty percent of the respondents believe that what helped them most in coping with gender bias was learning from their own experiences, with 25% noting learning from a mentor. Again, these findings are

only to provide a description of the study sample, as the small size of the respondents precludes hypothesis testing.

### *Qualitative study*

The principal themes, identified by reviewer consensus, fall within the following categories: (1) the description of the environment for women in academic medicine who have or perceive they have experienced gender discrimination, (2) how women who have experienced gender discrimination cope with it, (3) response strategies to gender discrimination, and (4) what institutions can do to change the environment for women in academic medicine (Table 1). In the sections that follow, we summarize the content within these thematic domains, using quotations from the interviews themselves to specifically state or illuminate the points.

*Description of the environment for women.* A number of women faculty characterize academic life in terms of a subtle gender war, with a system that values men but does not value women: "I am a survivor. I am good and I am worth it and I am not going to let them (men) win." Continually confronting gender discrimination places women faculty in a more hostile environment, but one in which discrimination is "now a more subtle shade of gray." Women often find it tricky to recognize gender discrimination, in particular separating limitations of family and their abilities from actual discrimination. One woman faculty member in the study commented on the subtle difficulty in discerning discrimination:

It takes many women a significant period of time before they are fully aware that it is happening, and then often because they have compared notes with other women faculty and begin to recognize career experience patterns quite different from those of male colleagues.

TABLE 1. MAJOR DOMAINS

Description of the environment for women in academic medicine who have experienced or perceive they have experienced gender discrimination
How women cope with gender discrimination
Response strategies
What institutions can do to change the environment for women in academic medicine

Junior women faculty are seldom aware of gender discrimination early in their careers until they see the gender differences unfold as their careers advance.

Although these women perceive that gender discrimination is pervasive, the basic sciences are seen as less discriminatory than the clinical departments. However, women still receive less salary in all departments, basic science as well as clinical, "because they are not the breadwinner." If they are part-time faculty, there are also issues: "They assume you are not interested and you are dismissed; you are ignored and not recognized for your accomplishments." There is a sense that male faculty focus too much on family issues as the only problem for women, and this masks the real problem: "The focus on family issues is a disservice—the issue is discrimination."

Women in such environments become cynical about what is needed to address gender discrimination. Perceived discrimination in academic advancement leaves an injury that makes it difficult to seek further advancement and to again expose oneself to the scrutiny entailed in the promotion process. As a result, women who believe they have experienced gender discrimination become less confident in their skills: "I feel that probably a man would do better. . . ." In this environment, women can never do enough to be advanced; the targets to achieve promotion are "elusive and re-defined annually."

These women are aware of the history of the problem, but they also convey an anger among their colleagues that they perceive is new:

Women who were very early in the history of science often got into good positions because of the men they were married to. They were generally grateful and had very few criticisms . . . even though the discrimination was gross. . . . They were not angry. It is my sense that my generation is angry.

Women in our study also appreciate that progress has been achieved: "It is cyclical. You lose a little bit; you gain a little bit. The general trajectory is forward."

**Hierarchical structure.** The hierarchical structure is seen to work against women because there are few women at the top. This structure facilitates further victimization because women often have to report to those they see as perpetrating the discrimination. In addition to the structure

perpetuating the problems, there is an uncertain mystery embedded in the hierarchy: "edicts come from above," and faculty are largely unaware of how the institution really works. "The problem is the institution and how they delegate power." White males are seen to perpetuate the hierarchy. A further issue is that women who have experienced gender discrimination do not feel that the leadership in academic medicine is sufficiently concerned with the problem: "Gender discrimination is not [seen as] a problem for most people at the very top. That filters down."

There is a sense of helplessness to effect change for many of these women faculty who have experienced discrimination. "There is nothing you can do about the environment; you need to learn how to deal with it yourself; there is no assistance you can get." These faculty perceive that there is little that can be done. They see gender discrimination as "pervasive, institutionalized, and culturally ingrained." Many women in our study found little assistance or effective resources available to cope with the problem: "[the] helping resources don't work—they protect the institution not the individual." In addition, they see no possible preparation for some acts of discrimination: "You can't train for out-and-out discrimination; you either have the skills or you don't." In this view of the academic environment, only time will improve gender bias in academic medicine.

*Coping with gender discrimination.* There is a strong sense that just letting time pass will take care of the problem: "Fast forward the clock another 40 years and things will get better." Many faculty are waiting for a new "enlightened generation that is not necessarily female," when "men will be more invested in family life and be more fair." Other faculty, however, see the need for more active intervention in the current environment.

Even though many individual situations of gender discrimination are unique and idiosyncratic, the overall problem among these women is perceived as common and can be addressed if it is recognized and studied. A key strategy is to remove isolation: "Check with others; there is strength in knowing that you are not isolated in this." The removal of isolation is proactive and can lead to effective group efforts. "Women need to know that this is common and form groups for support and to mobilize systemwide; they need

to document as a group." The support of such groups can be sustaining.

Many of these women find a mentor to be extremely helpful in navigating this difficult environment: "A mentor is the most important thing to the success of anyone, male or female." One needs a mentor as a guide, but it has to be the right person. For some, it is important for that mentor to be female to help them successfully navigate the academic environment: "mentoring by senior women who have made it, who can negotiate the gender-related issues, to allow your career to advance, focus your goals and network." The mentor provides skills and essential personal knowledge to enhance career advancement.

Skills, information, and support. Many women faculty perceive the importance of acquiring specific skills to assist an academic career and suggest formal training sessions to learn techniques. There is a broad range of skills that are perceived as helpful, such as conflict resolution, training in negotiation, gender sensitivity and grant writing, how to prepare successful academic CVs, how to ask for increased salary and to develop more effective communication skills. It is equally important to have specific knowledge and information on gender discrimination: "Prepare women ahead of time to recognize gender discrimination; younger faculty don't give credence to this until they experience it, but at least they will recognize it." Knowledge and practice are a crucial part of this preparation: "It is important to have familiarity with successful and unsuccessful cases of gender discrimination at other institutions; you need to study cases and role play." It is also key to know the perspective of the entire institution, not just your own department. Other faculty stressed the value of understanding both gender outlooks to fully evaluate a situation: "It is useful to have both male and female points of view." A broader picture of the entire institution and both genders puts things in perspective.

Support on many levels is a key component in dealing with gender discrimination: "Women faculty support groups are seen as a foundation for making it and surviving." In addition to forming groups for support, women value both a supportive boss and immediate colleagues: "The institution can't provide what you need; you must find people in the department. It is important to have good relationships with them as a support

base." Part of this support is also to acquire a degree of power. Such networking is a power base, and these women faculty perceived this to be key: "It is all about power."

*Response strategies.* A number of possible responses to acts of gender discrimination are suggested. The first necessity, however, is to be fully aware of gender discrimination, to understand what is happening, and to study the phenomenon: "Be aware, gender bias can be unobtrusive. You need to be aware of gender issues to avoid the problem." Even more than being aware, women need to study and understand the problem:

I think people have to know their enemy—who is the person they are dealing with and figure out why the person is doing this and therefore react in certain situations. It is almost a sociological/psychological type of analytical response.

Senior faculty are seen as having a responsibility "to study it as we would study anything; as scientists, understand it as much as possible."

No response to gender discrimination is possible until you are aware of and fully understand the situation: "Be calm, speak to someone you trust, and get distance." Once you have reflected on the situation, it is important to address gender discrimination directly: "Confront [this] in a nonconfrontational style; make it clear how you feel." This allows the faculty member to present the facts clearly and coherently and make the arguments cohesive. Persistence is also necessary "to keep gender discrimination continually in people's consciousness." This is clearly a major issue for these women that needs to be continually addressed.

By whatever method you address gender discrimination, dealing with it in some explicit manner is key. You cannot just ignore it:

You need to deal with it [gender discrimination] and you just can't shove it under the rug and think that it will go away. It needs to be addressed directly, and women who have experienced it should discuss it and deal with it and speak up.

It is also important not to be tolerant of small inequities, but to be proactive and take a stand. This manner of confronting will prevent further problems:

Discrimination ends up being a "ton of feathers"<sup>12</sup>; I think you have to stop it at the first feather. Raise consciousness enough where little tiny transgressions can be caught. The idea is to stop inequities and exploitations where they begin, be proactive. I see one of the biggest problems is being tolerant and you sort of allow it to progress to a damaging and severe level, and at that point it is too intimidating to confront.

Dealing proactively with small incidents of gender bias prevents escalation to severe levels.

The strategy of minding your own business and doing your research, however, is also prevalent among some women who have experienced gender discrimination: "Write grants, get your work published and stay out of sight; success will force them to give you what you want." When an episode of gender discrimination occurs, be quiet about it and file an informal complaint to have it on record. This will provide some means of protection.

You don't want to file a formal complaint because very often that is death in institutions. If you don't file a complaint and you talk about your experience and it gets back to the harasser, you are in the worst and most vulnerable position you can be in. Either you keep your mouth shut totally or tell somebody semiofficially and get it on the record. It is the only way to protect yourself.

Remaining quiet but placing an unofficial complaint in such situations is seen as the safest strategy.

Among our interviewees, there is little faith in affirmative action officers. They are seen as "completely and systematically ineffective." There is also the sense that such positions represent a conflict of interest, as they are paid by the university: "No one in the institution who is getting a paycheck from the institution. . . . there is an inherent conflict of interest. They can only go so far. In fact, people have sort of fallen into a black hole trying to use internal mechanisms." These institutional positions represent a perilous job for those in the positions: "It requires a person of enormous prestige to survive it, and in my view, most of the time, these people end up going down in flames." Institutional affirmative action officers are perceived to be in a precarious position, with a potential conflict of interest in advising victims of discrimination. By virtue of their

position in the medical school, they are distrusted.

There is also a strong sense among women who have experienced gender discrimination that taking action places your career in jeopardy: "I decided against it [bringing a person up before the misconduct committee] because I just feel that in looking at cases I have seen, the whistle blower suffers." In this view, "making a suit hurts your career more than it helps; [it is] better to change institutions." More than the harm to your career, a gender discrimination suit is of no consequence, a minor nuisance because the consequences for such discrimination are not high enough: "It was a fifty cent parking ticket." There is a sense, however, that faculty who pursue such a course are of value to the community:

It is wonderful that a few people are willing to make the sacrifice to do it [file a formal complaint] because it helps the system. The fear that people can have when taking on institutions—fear is justified. Although many people would like to pretend it doesn't occur, retaliation is real and severe. After the retaliation, you are so much worse off than you would have been if you kept your mouth shut that it is frightening.

It is perceived that those who fight the system formally suffer severe consequences. The other option rather than confronting the issue or suing is going to another institution. If you are in a bad situation, the advice that is given is to "get out, don't be held by contracts: make the best choice for what is good for your career rather than what you signed a contract to do."

*What institutions can do.* This group of women faculty perceive that the first thing medical schools need to do is admit there is discrimination: "Institutions need to recognize this [gender discrimination] as an issue that is still there." Along with recognition, specific policies are crucial: "We need institutional policies that do not support these abusive activities and more negative consequences for them." These policies need to be led by top leadership, and the leadership needs to be actively searching out instances of gender bias: "The dean should be proactive at discerning gender problems, not wait for the women to come to him." It is inadequate just to respond to gender discrimination. The institution needs to seek out and evaluate itself on these issues constantly.

Women faculty who have experienced gender discrimination recurrently expressed the need for a fair evaluation with an external fair arbiter: "Scrutiny of the promotion process is necessary, and we need resources external to the department." To do this well requires a singularly trained individual(s):

The institution needs a professional dedicated to give advice on these issues that you can consult officially—informal discussions to determine whether to make a formal complaint; an expert in legal and psychological areas; aware of the specific procedures needed to document [discrimination].

Part of this scrutiny should be on the part of faculty, who should evaluate mentors and department chairs anonymously. In addition to external and internal scrutiny, these women faculty felt there should be required reading for chairs and division heads to reveal how such discriminatory issues are cultural and ubiquitous: "They need to understand the fundamental societal and cultural issues that contribute." Obtaining a fair review of salary, achievement, and advancement and educating senior and leadership faculty to understand the larger issues that feed the problem are suggested necessary steps to improve the environment so that gender discrimination does not occur.

The institution should also provide seminars and information for faculty, "not just a large book." If another institution has been successful at resolution of gender discrimination issues, it is important to publicize their accomplishments: "Institutions should nurture women faculty groups and provide information from other schools and distribute this; provide training and learning techniques." This reassurance "gives the message to women that it can be done." Procedures for tenure and promotion need to be written down and publicized, and there should be designated officials who are responsible for this dissemination. Established resources, such as an office of development and career counseling, are important so that faculty are not dependent on immediate colleagues for such vital information. Such an office should be headed by a high-ranking dean to oversee women in medicine, and this "should be an M.D., a non-M.D. is not effective."

Part of the solution is to increase the numbers of women in senior positions so that a critical

mass is present. These senior faculty then need to assist junior women, working to mentor those behind and helping other women cope in academic medicine.

## DISCUSSION

A number of women in academic medicine (60% of women faculty in the 1995 National Faculty Study<sup>10</sup> responded similarly to the faculty in our study) perceive that academe can be a stressful, difficult, and hostile environment for women. These women pursue their careers in an environment in which they find it difficult to formulate and advance their careers because of the need to continually address gender bias. Seminal episodes of gender discrimination exert major impacts on these women's confidence, collegiality, optimism, and career satisfaction. The many small discriminatory events take a cumulative toll, becoming the "ton of feathers"<sup>12</sup> that destroys or corrupts a career. The full effects of gender discrimination on women's careers are unknown,<sup>13</sup> but women faculty who have experienced such discrimination report lower career satisfaction and professional confidence than do other women faculty.<sup>6</sup> Women experience such discrimination on a number of fronts, including both patients and supervisors,<sup>13</sup> at all levels of their training. Although many institutions have made impressive efforts to even the professional terrain for women and other non-mainstream groups, there remain faculty who struggle in the current academic environment. Understanding their issues and their suggestions to overcome the hardships they perceive holds the potential to improve the climate in academic medicine for all faculty.

The continuation of difficult environments has consequences for both women faculty and academic medicine as a whole. Many women choose not to remain in such environments, and valuable faculty are lost. Faculty affected by these problems yet remaining in this climate can have a negative influence on younger trainees, often dissuading them from entering academic careers. A recent study found a greater decrease in interest in entering an academic career for women during residency compared with men.<sup>14</sup> With almost 50% of the current medical student enrollment being female, it is crucial that academic medical institutions prevent gender discrimination and the loss of such significant talent.

Gender discrimination has been shown to be pervasive even in our learning institutions. The work of Sandler et al.<sup>15</sup> has shown that women in the classroom are interrupted more frequently, are called by name less often, receive less eye contact, and are given more praise for their appearance than for their work. All of these seemingly insignificant differences add up to forming a gender with lower self-confidence and self-esteem and the resulting difficulty of achieving their potential. Women medical students and trainees consistently experience more mistreatment and gender discrimination than men.<sup>16</sup> Despite this prior history of gender discrimination in their careers, our work reveals that many women who enter professional, academic medical careers do not expect—but often face—a discriminatory environment. Most women faculty in our study state that their careers went relatively smoothly and they advanced similarly to men until they reached their first faculty position. So, although they may experience discrimination in medical school, women do not perceive the earlier experience as substantially affecting their careers or providing the necessary education and preparation to successfully cope with it as faculty. The proportion of women entering academic medicine, although greater for women than men for decades,<sup>17</sup> is now lower.<sup>1</sup> A qualitative study that queried department chairs and division chiefs in academic medicine on the barriers confronting women, as well as potential remedies for these obstacles, brought out the constraints of traditional gender roles even in academe and manifestations of sexism in the medical environment.<sup>18</sup>

Recent years have been stressful for faculty in academic medicine. Distinguishing the stress of gender-related bias and discrimination from general faculty stress resulting from increasing budget constraints, increasing clinical demands, and decreased ancillary staff is difficult. A recent study at Partner's Hospitals revealed very similar financial constraints and lack of support for all academic faculty.<sup>19</sup> Nonetheless, many women in academe carry the added burden of gender discrimination, which is real and, at times, pervasive in their lives.

Other professions, such as business, law, and academia, show similar issues in advancement and salary for women.<sup>20</sup> A study of midcareer managers in business comparing men and women showed that women are less likely to reach top levels and gain less financial return from job

transfers. Women have similar salaries at the time of MBA graduation, but the gap widens over time, although there is evidence that there may be similar returns over the most recent 4-year period.<sup>21</sup> In the legal profession, women hold 9% of general counsel dean positions and 6% of tenured faculty positions in law schools.<sup>22</sup> Half to two thirds of female lawyers report experiencing or observing sexual harassment, and three fourths believe it is a problem at their workplace.<sup>22</sup> Clearly, gender discrimination is pervasive in many professional careers throughout our society.

Our study has a number of limitations. The in-depth and time consuming nature of our study does not lend itself to large sample sizes, and our results are not generalizable to all faculty. We have limited our study to women faculty who have or may have experienced gender discrimination. Although this may constitute a significant portion of women faculty, it does not describe the environment for all women faculty in academic medicine. Often, however, input from such disenfranchised faculty improves the environment in academic medicine for all faculty.

As a qualitative study, we aimed to explore the content of the interviews, but we cannot estimate the prevalence of this content. By the very nature of the research methods used in this and other qualitative studies, numerical indicators for reliability and validity of our observations are not available. It is unclear if another investigator examining our data would extract precisely the same themes. We did, however, explicitly compare the themes independently extracted from each transcript by the five investigators and were encouraged to find them to be consistent and highly congruent. We also found these themes to be highly repetitive among faculty at diverse institutions and among faculty at varying ranks.

Our study has significant strengths. The special contribution of such qualitative methods as in-depth, individual interviews, followed by detailed repeated reading of the transcript interview text, is to uncover richness of diverse opinion, natural (nontechnical) language, and a broad universe of potential understanding and approaches.

## CONCLUSIONS

Among the faculty we interviewed who experienced or may have experienced gender dis-

crimination, the results are disturbing and powerful, significantly affecting professional careers and satisfaction with work. Despite this, women who have experienced such discrimination have developed numerous strategies to successfully cope and advance (14 of the 18 interviewed were associate or full professors). Women faculty need to be able to redirect this energy and creativity into academic work. Medical schools need to evaluate and may need to improve the environment for women in academe.

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