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Inadequate Progress for Women in Academic Medicine: Findings from the National Faculty Study

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Abstract

Background: Women have entered academic medicine in significant numbers for 4 decades and now comprise 20% of full-time faculty. Despite this, women have not reached senior positions in parity with men. We sought to explore the gender climate in academic medicine as perceived by representatives to the Association of American Medical Colleges (AAMC) Group on Women in Medicine and Science (GWIMS) and Group on Diversity and Inclusion (GDI).

Methods: We conducted a qualitative analysis of semistructured telephone interviews with GWIMS and GDI representatives and other senior leaders at 24 randomly selected medical schools of the 1995 National Faculty Study. All were in the continental United States, balanced for public/private status and AAMC geographic region. Interviews were audiotaped, transcribed, and organized into content areas before an inductive thematic analysis was conducted. Themes that were expressed by multiple informants were studied for patterns of association.

Results: Five themes were identified: (1) a perceived wide spectrum in gender climate; (2) lack of parity in rank and leadership by gender; (3) lack of retention of women in academic medicine (the ''leaky pipeline''); (4) lack of gender equity in compensation; and (5) a disproportionate burden of family responsibilities and work-life balance on women's career progression.

Conclusions: Key informants described improvements in the climate of academic medicine for women as modest. Medical schools were noted to vary by department in the gender experience of women, often with no institutional oversight. Our findings speak to the need for systematic review by medical schools and by accrediting organizations to achieve gender equity in academic medicine.

Introduction

Women have entered academic medicine in significant numbers for almost 4 decades. The Association of American Medical Colleges (AAMC) formed the Group on Women in Medicine and Science (GWIMS) as an official group in August 2009, providing further recognition of the importance of women's academic capital to medical academe. Nonetheless, women have not achieved senior leadership in rank or position compared with men, and there continues to be a gender disparity in pay—controlling for specialty, seniority, hours of work per week, publications, and grants—that has not improved from 1995.[1,2] Women also leave academic medicine at a higher rate than men do and bear a greater responsibility for child care and family responsibilities.[3,4] There is a need to understand the multiple factors associated with this lack of advancement of women and to investigate the environment in which they work. One aspect of the institutional environment, referred to as the academic climate, is defined as the formal and informal institutional attitudes and programs to promote gender equity in the workplace. Although a recent survey of US and Canadian medical school deans suggested that the culture for women had improved,[5] other studies have found that the climate in academic medicine fails to support women.[6,7,8] We sought to explore the opinions of individuals who have a leadership

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role to address the climate for women, including institutional members of the AAMC GWIMS. We conducted qualitative interviews to explore the gender climate (i.e., support for women to achieve gender parity) for women in academic medicine as perceived by members of GWIMS and the Group on Diversity and Inclusion (GDI) of the AAMC as senior leaders with longevity at their medical schools with a unique perspective over time.

Materials and Methods

Our qualitative study is part of a larger longitudinal follow-up survey of faculty at the 24 US medical schools that were part of the 1995 National Faculty Survey.[9] The parent study randomly selected 24 medical schools in the continental United States, balanced by AAMC geographic region and private/public status. For our study, we sought to gain an understanding of the current gender climate across these institutions, utilizing the random-selection process to collect data on a representative group of medical schools. We conducted qualitative key-informant interviews to explore the gender climate for women in academic medicine, identifying individuals with first-hand knowledge of the academic community. We chose GWIMS and GDI representatives as key informants because of their knowledge of issues affecting women and minorities for in-depth, semistructured individual interviews as our data-gathering method for a qualitative assessment of gender climate at these institutions. We sought GWIMS and GDI representatives or those who served in a GWIMS or GDI role. If GWIMS or GDI representatives had less than 10 years of seniority within the institution of focus, we used referral sampling to request the names of other senior faculty with a significant institutional memory of the school and conducted an additional interview (ADD representative).

We obtained informed consent prior to each key-informant interview, which was audiotaped and transcribed. Interviews were 50 minutes on average and were conducted by four trained interviewers not known to the interviewees. We awarded faculty a modest monetary incentive for participation.

The semistructured interview, developed from a literature review and from our prior research, included a number of questions about the perceived gender climate: (1) ''What is the climate of your institution for female faculty?'' Interviewers probed for positioning (rank) of women in the institution, perceptions of gender-equitable satisfaction with position, compensation, and opportunities for advancement and promotion. (2) ''Has there been any assessment of faculty climate in terms of gender equity?'' (3) ''How has the climate changed in the span since 1995?''

We analyzed interview data in two phases. The research team collaboratively developed an *a priori* coding scheme based on content areas covered in the structured-interview guide. Four members of the research team read and coded the transcripts, using HyperRESEARCH version 3.0 (ResearchWare, Inc.). We assigned two primary research team coders to each transcript and reached intercoder agreement, using a standard approach described by Carey.[10] We coded relevant content areas inductively to identify themes that emerged from the interviews. The final themes detailed in this article describe the gender climate. Quotes are identified by the respondent's rank, number of years at the institution, group (GWIMS or GDI representatives or other senior faculty), and gender.

This study was approved by the institutional review boards (IRBs) of Boston University School of Medicine and Tufts Health Sciences Campus. The Tufts IRB reviewed on behalf of Massachusetts General Hospital through the Master Common Reciprocal Agreement.

Results

The final sample comprised 44 individuals representing 23 schools, as 1 institution declined participation. We interviewed 22 GWIMS, 20 GDI representatives, and 2 senior faculty, who were identified and approached for participation by referral sampling. GWIMS representatives were all female, with 18 (82%) professors and 4 associate professors. The mean age of GWIMS participants was 58 years; on average, each had at been at her institution for 19 years. Eighteen (82%) of the GWIMS informants identified as Caucasian, 2 (9%) as Asian, and 2 (9%) as African American. Half the GDI informants were men; half, women, with 13 (65%) professors, 6 (30%) associate professors, and 1 (5%) assistant professor. The mean age of the GDI representatives was 55 years; on average, they had been at their institutions for 18 years. Four (20%) self-identified as Caucasian, 2 (10%) as Asian, 10 (50%) as African American, and 4 (20%) as Hispanic. These faculty members were in senior leadership positions (associate deans or deans, chairs, a deputy provost, a vice chancellor. Five faculty members explicitly described their active role in the promotion and tenure committee at their institutions).

We identified five themes from the qualitative responses on gender climate: (1) a wide spectrum in the perception of the current gender climate (Table 1); (2) continued lack of parity in rank and leadership by gender (Table 2); (3) continued lack of retention, the ''leaky pipeline'' (Table 3); (4) continued lack of equity in compensation by gender (Table 4); and (5) the disproportionate burden of family responsibilities and work-life balance on career progression for women (Table 5). Participant quotes for each theme are displayed in the tables.

Perception of the current gender climate

Climate descriptions across the 23 institutions covered a broad spectrum, with no consensus on the overall progress for women. There were several distinct descriptions of the institutional climate (Table 1): Four respondents described the climate as ''an old-boys' club''; others, as one with more subtle gender issues; several, as a neutral climate or as improving because of the higher numbers of women. Other respondents regarded gender-equity issues as resolved; a number described a lack of resources to accomplish change; two, with truly significant progress; and a number with inconsistency across departments and specialties.

Respondents described the ''old-boys' club mentality'' climate as one with errors of omission and a lack of awareness of the mistakes that are made, reporting that there was little recognition of women's accomplishments and a persistence of unintentional gender bias. Other key informants described more nuanced gender biases but still saw a lack of programs to specifically address issues of women in academic medicine. Several of the respondents expressed a sense that the institutional climate was ''neutral'' for women faculty, that gender was not an issue and required no special

Table 1. Theme 1: Spectrum of the Gender Climate
(Key-Informant Interviews in the National Faculty Survey)

Description of the theme	*Quote*	*Rank*	*Years at institution*	*Gender*	*GWIMS, GDI, or ADD*
Little improvement	''At the most senior level, essentially an old boys' club mentality that really does color the culture… if they [women] are successful, they're not recognized and rewarded appropriately.''	Professor	5	F	GWIMS
	''I think the place operates by the traditional old boys' network…it's easy to change when you bring it to people's attention, because it is really benign in intention—[but] not benign in impact.''	Professor	21	F	GWIMS
	''At the most senior level, essentially an old boys' club…. The large critical mass is still a bunch of white guys.''	Associate professor	13	F	GWIMS
	''Many women are really fed up…what is the point of asking us to fill out these surveys when it never makes a difference?''	Associate professor	1	F	GWIMS
Improvement with subtle bias	''I really don't think that there's much in the way of overt discrimination anymore…it reflects unintended bias.''	Professor	19	F	GWIMS
	''It's not that on a daily basis you feel bad about being here. It's just that there [are] no programs…directly geared towards making sure that women are successful.''	Associate professor	14	F	GWIMS
	''We have a large number of women in leadership positions, but that doesn't mean that we have achieved equity…as you get farther and farther along…it gets more and more difficult…you're dealing with subtler and subtler issues.''	Professor	19+	F	GWIMS
Neutral: gender not an issue	''The climate for female faculty is the same as it is for other faculty.''	Professor	6	F	GWIMS
	''Women's perceptions were no worse than men's overall.''	Professor	5	F	GWIMS
	''The climate is neutral.''	Professor	22	F	GWIMS
	''I don't think the dean currently supports the notion of really looking at these [gender] issues…he stated that he doesn't think that women's issues are a problem.''	Professor	23	F	GWIMS
Some progress	''It will not get better without a very active intervention plan…but nobody wants to pay for it…that's what it is going to take.''	Professor	13	F	GWIMS
	''I'd say it's better than most, but I think we have a long way to go.''	Professor	29	F	GWIMS
Very positive climate	''We just have a culture and an environment where women are very frequently hired and brought in at senior positions.''	Professor	19	F	GWIMS
	''We have a new dean…who is strongly committed to gender and race-ethnicity equity. He has sent that message loud and clear through the institution. He appoints associate and vice-deans…he's made a determined effort to include many women in those ranks.''	Professor	9	F	GWIMS
Greater numbers of women will bring gender equity	''I would think the climate is good. It has been improving….That's because the number of women in academia has been progressively increasing…so you have sheer numbers out there…that can impact change.''	Professor	39	M	GDI
	''More women are inexorably gaining more and more terrain…it is unavoidable that as time goes on more and more women will occupy higher ranks…it's just a matter of time.''	Professor	30	M	GDI

(*continued*)

Table 1. (Continued)

Description of the theme	*Quote*	*Rank*	*Years at institution*	*Gender*	*GWIMS, GDI, or ADD*
Inconsistency at institutions across departments	''So the overall climate…I see it as relatively equitable. But I know that it's not…there's significant lack of mobility, that they [women] experience. We have three chairs that are women…all the other chairs are men.''	Associate professor	10	M	GDI
	''It's one in which there is…inconsistent awareness [among departments] regarding the needs of women and the importance of bringing diversity to the table.''	Professor	29	F	GWIMS
	''If you happen to get a chairman who has no interest in promoting women, there really have been …no consequences for that.''	Professor	13	F	ADD
	''Mixed. I would say it's very mixed. It really depends on the department.''	Professor	23	F	GDI

ADD, representative given additional interview; F, female; GDI, Group on Diversity and Inclusion; GWIMS, Group on Women in Medicine and Science; M, male.

attention. For some key informants, there was a sense that gender-equity issues were resolved and that the institution was moving on to other issues. Some no longer saw the need to monitor the gender environment, with one example of not including gender questions on a faculty climate survey. In contrast, other key informants recognized the need for more to be accomplished and reported the lack of resources for any meaningful interventions to be made in the current economic climate of academic medicine. Two respondents described a positive climate for women, with an ever-increasing number of women in leadership positions and significant progress.

Another concept that emerged from the transcripts was the belief that the greater numbers of women would inevitably bring gender equity. Only male informants reported this perspective, although some did describe the difficulties in upward mobility for women. Informants suggested several factors perceived to impact the gender climate at each institution. One was the department or division. Climate was perceived to vary greatly across specialties, as there was often no institutional oversight, and chairs were often not held accountable. The lack of programs for women, the stressful economic climate, lack of resources in academic medicine with the decrease in funding from the National Institutes of Health (NIH) and other federal programs, and equating the number of women in senior positions as a proxy for a positive climate for all women were reported as factors that impeded progress for women in academic careers.

Parity in rank and leadership by gender

In describing the gender climate, some respondents noted that women were beginning to obtain more leadership roles. The benchmarks for success focused on achieving the rank of full professor and becoming department chairs and deans. Key informants almost uniformly recognized that more progress was needed and that this progress was increasingly challenging, as the issues to be dealt with were more subtle and difficult to resolve (Table 2). Several respondents described a climate that differed significantly for women, depending on the academic rank of faculty. In the lower ranks, it was welcoming; in the senior ranks, it was isolating. Respondents noted increasing difficulty in achieving senior positions and described a slow pace of improvements. Most of the informants reported continual gender issues with rank inequity. This factor was also seen as impacting the ability to recruit women to the institution, as issues with promotion are also seen as a deterrent to attracting women faculty.

Respondents noted that women were more frequently found in the nontenure clinical tracks rather than in the tenured research tracks with higher perceived prestige. Faculty in the educator and clinical tracks were not seen to be valued as highly and did not bring the same visibility to the institution. Respondents also reported having fewer women doctors of medicine (MDs) in research tracks. Despite these concerns regarding promotion and leadership, key informants did note improvement in promotions for women. One institution described a way of educating women faculty about ways to achieve more rapid promotion and the success they had with this endeavor. Even with these advances, many of the informants felt strongly about the lack of women in leadership positions, that this was key to achieving parity for women in academic medicine, and that there are enormous systems and cultural barriers to achieving these ends.

Retention and the "leaky pipeline"

Respondents described both difficulties and progress for women in retention. Some described a ''leaky pipeline,'' with women leaving at the level of assistant professor. Informants noted national trends, with women not being successful in going from NIH Career Development (K) Awards to independent Investigator Resources (R01) grants (Table 3). Several informants acknowledged that their institutions did not have adequate data collection to assess gender issues in retention, noting that without tracking the careers of women, they could not develop appropriate interventions to improve promotion and retention. Two key informants were quite positive regarding the progress of their institutions, with

Table 2. Theme 2: Parity in Rank and Leadership by Gender (Key-Informant Interviews in the National Faculty Survey)

Descriptions of the theme	*Quote*	*Rank*	*Years at institution*	*Gender*	*Role*
Some improvement	''It's a lot better than it was a number of years ago…there were no department chairs who were women…and really no women who were even in charge of major committees.''	Professor	21	F	GWIMS
Effect of rank	''While we had done a decent job of getting more women in entry level positions, they were not being moved in [to] positions of power.''	Professor	30	F	GWIMS
	''There aren't as many women in leadership positions as there should be…that's changing, slowly—more slowly than one would expect, based on the number of years.''	Professor	23	F	GDI
	''It's not that it's not supporting, it's just that there is no effort to make sure that there's equity in rank…similar rank among women.''	Associate professor	14	F	GWIMS
Recruitment	''If any female faculty come here, and they're looking at a particular job, they're going to be asking some important questions that they already know from a national standpoint…about salary, promotion rates…. I think those are still a detriment.''	Professor	21	M	GDI
Promotion tracks	''So you have the Health Sciences Clinical…primarily care givers that are also teachers…we have many more women going into Health Sciences tracks than academic tracks…the university [leadership] say they value all faculty equally, [but] they particularly value faculty that bring in research dollars and create that national presence for the university.	Professor	23	F	GDI
	''To have somebody come in on the research track, that's a very hard thing, to find a woman on a research track who's an MD. There are some, of course, but there are not many…there are departments in the institution that have almost no women…and certainly no women have been promoted or are in positions of power…. There's nobody who oversees that [promotion] in a meaningful way…. I can't think of a single female chair.''	Professor	13	F	ADD
	''You'd have two people put up, and the woman would be put up at instructor and the man would be put up for assistant professor with similar qualifications.''	Professor	21	F	GWIMS
Leadership positions	''Most of the leadership is male. We still have only two women who are department chairs. Most of the people at the vice-chair level are men.''	Professor	29	F	GWIMS
	''I don't think that women have achieved anywhere near equity of parity at the leadership level…there hasn't been a balanced representation…. Overall, women have a not very strong voice.''	Professor	30	F	GWIMS

MD, doctor of medicine.

Table 3. Theme 3: Retention and the ''Leaky Pipeline'' (Key-Informant Interviews in the National Faculty Survey)

Descriptions of the theme	*Quote*	*Rank*	*Years at institution*	*Gender*	*Role*
''Leaky pipeline''	''We still have more women than men dropping out at the assistant professor level, or staying at the assistant professor level and not going on to associate professor.''	Professor	29	F	GWIMS
	''I still worry at all levels—really nationally—why we are losing [women] in the pipeline, especially from the K award to their first R01, moving from assistant professor to associate professor.''	Associate professor	13	F	GWIMS
	''It's harder to find women in higher ranks like full professors.''	Associate professor	9	F	GWIMS
	''The climate is welcoming to bring people in. Females tend to start at the instructor, assistant professor rank and it is difficult for them to go through the ladder.''	Professor	17	F	GWIMS
	''What it has done to me…perhaps leaving because I can't find anything suitable to my level.''	Professor	17	F	GDI
	''It's not uncommon that people have toxic bosses…one woman left the university because of him and another had to leave his section…the climate was just too hostile.''	Professor	29	F	GWIMS
Midcareer issues	''Middle management, which seems to be a kind of forgotten group…there's still a ways to go.''	Professor	18	F	GWIMS
	''There are fewer things in place for midcareer, more senior-level faculty.''	Associate professor	13	F	GWIMS
Promotion	''We have women on promotions…people who are in each of the different pathways…If people do the work they get promoted.''	Professor	20	F	GWIMS

K, NIH Career Development Awards; R01, independent Investigator Resources grants.

Table 4. Theme 4: Equity in Compensation by Gender (Key-Informant Interviews in the National Faculty Survey)

Descriptions of the theme	*Quote*	*Rank*	*Years at institution*	*Gender*	*Role*
Part of the gender climate	''Salary equity is an important part of climate….There are many facets to climate. Salary is one.''	Professor	29	F	GWIMS
Secrecy	''There's a lot of secrecy around compensation. I happen to know the most outstanding chair…and her total compensation is a good $100,000 a year below the mean.''	Professor	5	F	GWIMS
	''We have a policy at our institution that does not allow salaries to be transparent. So we have to believe everyone who tells us that things are equal. But the perception is that there's no equality…that women are underpaid.''	Associate professor	14	F	GWIMS
Differences by department	''So there are departments where women are paid equitably and there may be other departments where they may be making 75 cents on the dollar compared to males.''	Professor	20	F	GWIMS
Addressing disparities	''I was chairing a gender equity survey…. There was an across-the-board increase for women, then significant increases for some specific women who were way out of whack.''	Professor	20	F	GWIMS
Differences at hire	''There is no posting of salaries but I can tell from personal experience that women—I would estimate that salaries are probably 30% lower than men being hired for comparable positions…. There is no strong voice advocating [for] the salaries of women.''	Professor	30	F	GWIMS

Table 5. Theme 5: Family Responsibilities and Work-Life Balance (Key- Informant Interviews in the National Faculty Survey)

Description of the theme	*Quote*	*Rank*	*Years at institution*	*Gender*	*Role*
Childbearing	''There's still some lingering issues around women faculty and the reproductive issues…if they decide to have children, this…occurs right in the middle of…the first few years of their appointments. Then you have to make adjustments…taking care of children is always a bit of a negative—not a negative, but it works the hell out of you…. But we try to be sensitive to those things.''	Professor	39	M	GDI
Face time	''When women have family issues or are being determined to make sure they get to their kids' soccer games and leave their clinics a little earlier as a result, you know department chairs may say, 'Well, you know, I can get a little bit more work out of a guy who's going to stay a little longer.'''	Professor	20	F	GWIMS
Bias	''I think the main bias…is kind of against people [women] who might want part-time work.''	Professor	5	F	GWIMS
Child care	''To understand the processes and to put in a child-care program. And that falls to the women. Over the 10 or 12 years, we've worked very hard and had sort of empty promises.''	Associate professor	1	F	GWIMS
Work-life balance	''There are many facets to the climate…. Work-life balance is one. I think that women feel squeezed. They feel squeezed in terms of family responsibilities and balancing those with their academic responsibilities.''	Professor	29	F	GWIMS
	''We had a climate survey and women and men…said this was a difficult place to work, we weren't family friendly perhaps as we should be…we've done things on work-life balance, we've beefed up the amount of child care available on our campus…and are instituting an emergency child-care provision…we are really working to improve it.''	Professor	30	F	GWIMS
Flexibility	''What's needed is greater flexibility…so that people can change their mind as their life circumstances change…it would really benefit women…if they start out on a tenure track but decide to devote more energy to having children and leave the tenure track, if they could come back on it.''	Professor	9	F	GWIMS

women gaining gender equity in rank if they accomplished the necessary criteria for promotion. These respondents also described the difficulty in finding women at higher ranks, noting that ''middle management''—those at the associate professor rank—were a forgotten group that was at risk for not remaining in academic medicine or achieving senior leadership positions. Respondents described efforts to improve promotion and retention by having women from each pathway (clinical, research, and teaching) represented on the promotions committee.

Gender equity in compensation

The key informants described salary equity as an important aspect of the gender climate, as well as the secrecy and lack of transparency around salary issues (Table 4). The atmosphere this created was one of uncertainty: Informants perceived that women did not believe that there was gender equity in compensation or in the distribution of other academic resources. One key informant described a traditional gender-negative view: a male being the support of a family as a factor in compensation decisions, implying that women do not have the same need or merit for salary as men. Respondents also described differences by department in compensation, often with no institutional oversight. Exemplary quotes are provided in the tables. A few key informants described efforts to ameliorate the gender pay discrepancy at their institutions, with many women needing an upward adjustment of salary. Pay discrepancies were described even at hiring, contrary to the belief that the gender disparity is only for more senior faculty in their positions for some years. The respondents perceived salary equity as an important aspect of the value placed on women in academic medicine.

Family responsibilities and work-life balance

Respondents indicated that women still contended with issues around bearing and rearing children, the timing in their careers to have families, and the impact on their careers, especially in early academic appointments (Table 5). Key informants reported that women were seen as the main family caregiver in certain departments and by some chairs. Respondents perceived that face time in academic medicine was still the hallmark of dedication to an academic career rather than the results of the work completed or the quality of the medical care provided. The respondents described bias

against women who might want part-time work or work-life balance and the difficulty for women of attending to both family and work responsibilities. One respondent did not see any changes in her institution from the early 1990s in the process for negotiating maternity leave. Several respondents described the need for greater flexibility in changing academic tracks at various points of family life. One key informant reported institutional initiatives to better meet the needs of faculty with families, such as providing more child care, including emergency child care.

Discussion

We describe the observations of 44 senior faculty members on the gender climate at a representative sample of nearly 20% of American medical schools, including both public and private institutions in all geographic regions. We purposively sampled key informants who had an institutional role in addressing the issues for women and underrepresented minority faculty and with longevity at their institution in order to explore the current climate and changes at the institution in the prior 15 years. Our key informants reported on advances in the gender climate while reporting continued need for improvement. Five themes emerged: the broad spectrum of the overall gender climate, lack of parity in leadership, challenges in retention, lack of parity in compensation, and a disproportionate burden of child-care issues. Many key informants noted that women have entered leadership positions, such as department chairs and deans, which appear to be the benchmarks for success. Although some informants noted the gains that have been made, other informants described these gains as modest and not reaching gender parity in senior rank and position. They described examples of variations by department, with no institutional oversight and a relative lack of women in senior positions. The range of issues affecting women, which influenced their advancement and rank, were described as broad, including retention, equitable compensation, family responsibilities, and work-life balance.

Recent literature mirrors many of our results. One study found that work and family-life factors served as obstacles to satisfaction and retention of women faculty, reflecting subtle gender bias at the intersection of work and family life.[3] Other studies have found that medical schools fail to create and/or sustain an accepting environment for women.[7] Individual disciplines have also documented issues with the gender environment.[11,12] Some studies suggest that academic medicine fails to provide support for both men and women faculty and that the current structures and economic environment are resulting in retention and promotion issues for all faculty.[13] However, research has shown that the hierarchical structure of academic medicine affects women more negatively than men,[14] as women traditionally thrive in a more egalitarian environment. In addition, the person at the top of the hierarchy is more frequently male, which can also affect women more negatively than men.[13] These factors can contribute to a negative gender climate with a significant impact on women faculty's work experience and retention in academic careers.[15]

Many of the key respondents perceived slow progress, suggesting that efforts are stalled in improving the gender climate. There was also a perception among informants for the greater attrition of female than male faculty, especially at the assistant professor level, but several acknowledged a lack of data tracking retention. Data from the AAMC reveal that over a 10-year period, 44% of women left academic medicine compared to 38% of men.[16] A national cohort study of US graduates between 1998 and 2004 found that women were more likely than men to have held faculty appointments in academic medicine, but the numbers decreased between 1998 and 2004 for both genders.[17] Many of our key informants described more women faculty compared to men in clinical rather than research tracks. Although many institutions have created specific promotional criteria for educational and research faculty, a perception of greater value placed on research faculty continues.

A number of respondents in our study perceived systematic gender inequity in academic medical salaries. The atmosphere of secrecy and lack of transparency they describe is concerning: that women tend not to believe that there is gender equity in compensation or in other academic resources. Our previous work from 15 years ago documented an $11,691 difference after adjustment for rank, specialty, hours of work per week, productivity (grants and publications), and institution.[2] More recent work continues to find these gaps across such specialties as ophthalmology,[17] emergency medicine,[18] and life sciences.[19] Recent work indicates that even at the junior investigator level, male faculty make on average $13,399 more than female faculty, after adjustment for specialty, rank, leadership position, publications, and amount of time in research.[1] This finding is concerning, as most respondents believed that the gender inequity is a legacy present only for more senior faculty, which implies ongoing current salary discrepancies. Women also tend to not investigate or ask for higher salaries.[20] Despite 20 years of data, equity in compensation has yet to be achieved.

The intersection of work and family balance for many younger women faculty is a major contributing factor to a negative gender climate. It has been shown that women residents delay childbearing, and women signified a greater belief in the potential of pregnancy to threaten their careers than men did.[21] Buddeberg-Fischer found that any negative impact on career path and advancement was exacerbated by parenthood, especially for women, and that socially rooted gender stereotypes were concerning.[22] From the comments of key informants, there are continuing issues of work-life balance and often a lack of knowledge of institutional policies.[23] A study by Levine *et al.* looked at reasons why women leave academic medicine and found a disconnect between their own priorities and those of the dominant culture of academic medicine, which they perceived to be male-focused. They reported a lack of role models for combining career and family, frustrations with funding and work-life balance, and a noncollaborative institutional environment.[24] Mentoring women in multiple role management and planning was suggested as a means to increase retention and advancement of women in academic medicine. Addressing a necessary skill set earlier in training and initial faculty roles could be an important factor in the success of women faculty.[25]

Our data are not new in content, but that is all the more reason that it is important. The descriptions of GWIMS and GDI representatives are from faculty who deal with these issues on a daily basis and have years of experience at their institutions. From our findings, we are concerned that there is

complacency around the issues of women in academic medicine and a perception that gender issues have been addressed and are no longer a focus of attention. There is a continuing need to revisit the progress that has been made for women in academic medicine to retain and improve upon the current gains in gender equity.

Our study has limitations. Although we have data from 23 medical schools, the data do not describe the climate for all women faculty. The opinions of the GWIMS and GDI institutional representatives and senior leadership may not reflect the breadth or consensus of the entire faculty, especially more junior faculty members' experience. We explored the content of the interviews, but we cannot estimate the prevalence of this content. However, our data reflect interviews at a representative sample of nearly 20% of all medical schools that represent all four AAMC geographic regions and are balanced for private/public status, and we did find the themes to be consistent and highly congruent.

Our study also has significant strengths. The qualitative methods allow for a thoughtful description of the wide spectrum of the gender climate, and some of the descriptions reveal little progress. Our study is based on interviews from senior faculty with significant longevity at their institutions, providing them with a unique vantage point on the gender climate and its evolution over time. The recent literature supports many of the themes that are derived from our research: lack of equity in compensation[1] and continued issues at the juncture of family and work life.[6]

Conclusions

GWIMS and GDI representatives describe improvements for women in academic medicine as modest. Our study indicates that there has been some progress to improve the work climate for women in academic medicine, but it has been slow and has not yet resulted in equity. Neither data on gender inequities nor greater numbers of women in academic medicine have substantially changed the climate. Although there are examples from several academic medical centers of meaningful interventions to successfully address stereotype bias and organizational culture,[25,26] these have not been disseminated to influence change at other institutions. The needed change can occur only with strong leadership, making this a priority and putting sufficient resources in place to make it happen. Better mechanisms to track the careers of women in academic medicine and the reasons why they leave academic medicine would be extremely valuable. There needs to be greater institutional oversight of advancement, compensation, and the overall gender climate for women. Senior leaders at the AAMC and the Liaison Committee on Medical Education (LCME) should emphasize the importance of these issues and enforce this as an integral part of medical school accreditation. Improving the climate in academic medicine for women improves medical academe for all faculty members.

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