Silent Bias: Challenges, Obstacles, and Strategies for Leadership Development in Academic Medicine—Lessons From Oral Histories of Women Professors at the University of Kansas

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Abstract

Purpose

Despite dramatic increases in female learners and junior faculty, a significant gap remains in female leadership in academic medicine. To assess challenges and obstacles encountered, strategies for academic success, and lessons learned for leadership development, the authors conducted an in-depth study of women full professors.

Method

The authors used a qualitative oral history approach, interviewing 87% of the cohort of female full professors at one Midwestern medical school in 2013 using a pretested, open-ended, semistructured interview guide. Interviews were videotaped and the audio recordings transcribed. Content was sorted into categories and key themes identified within each category.

Results

Participants described significant challenges: being treated with "silent bias," "being ignored," and being seen as an "other." Coping strategies included downplaying, keeping a distance, employing humor, and using symbols (e.g., white coat) to carefully present themselves. Explanations for success included intelligence, meritocracy, being even-tempered, and carefully constructing femininity. The participants recommended individual skills and actions to prepare for leadership development. Virtually all women could describe an individual mentor (sponsor), usually male, who provided essential assistance for their career success. At the same time, they stressed the importance of institutional support for diversity, especially with child care.

Conclusions

Attaining "full professor" status is the pinnacle of academic success. Women who successfully navigated this academic ladder describe significant external and internal challenges that require multiple strategies to overcome. Leadership development entails a combination of individual support through mentors and sponsors, self-education and reflection, and organizational structural support to promote diversity.

Since the early 1970s, there has been a dramatic increase in female medical students, house officers, and junior faculty.[1] Almost 50% of medical students and assistant professors are now female.[2] Some traditionally male resident training programs, (e.g., obstetrics–gynecology) are now largely female. However, recent survey data show a continued lag in senior female academic achievement and leadership.[2] While the proportion of full professors who are women has increased since 2003 (from 14% in 2003 to 21% in 2013), the percentage of new tenures that are women remains unchanged (30% in 2003 and 2013). Slow increases in key leadership positions have occurred since 2003; for example, the proportion of female deans has risen to 16% from 10% in 2003, but women continue to hold a much smaller percentage of key leadership positions than do men. Worryingly, the percentage of female medical school applicants has continued to drop since its peak in 2003.[2]

These statistics on the progress toward equity of women in medicine show a consistent trend in the ratio of women to men from medical students through medical faculty ranks and into upper administration: fewer and fewer women as one approaches the top. The most recent Association of American Medical Colleges Group of Women in Medicine and Science biannual report documents some small improvements in the past two years, but percentages of women remain relatively flat.[2] The picture appears similar in other parts of the health care system. In a 24-year continuing survey of health care chief executive officers (CEOs), female leadership numbers remained the same; 11% of respondents in 1990 and 11% in 2012 were CEOs.[3]

Data from surveys already exist that quantitatively describe women's participation in all stages of academic medicine.[1,2] There are also excellent reviews of cultural and organizational barriers preventing women from developing or achieving senior leadership positions.[4,5] However, few studies describe the dynamics through which these barriers actually occur and persist. Debate continues over the explanations for these barriers. Answers to these questions can potentially be found through systematic qualitative research, but few such studies exist.

Using a qualitative approach, we describe and analyze the experiences of senior women academics who have achieved full professorship during this period of changing female demographics in medicine. We seek to give voice to their experiences, not only to better understand their histories but also to develop and promote strategies for advancement and leadership development for young professional women of the present and future in medicine.

Method

Study design

Using a qualitative approach, we conducted intensive interviews in the

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Acad Med. 2016;91:1151–1157.
First published online February 16, 2016
doi: 10.1097/ACM.0000000000001125

An AM Rounds blog post on this article is available at academicmedicineblog.org.

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oral history tradition[6] with female MD and PhD full professors at the University of Kansas Medical Center during the summer of 2013. These professors were asked to talk about personal experiences over their medical and research careers. Questions for our semistructured interview guide were developed inductively in consultation with an oral historian (T.A.R.), drawing on social science gender literature (E.V.M.J.) and the authors' combined medical experiences and expertise (S.K.P. and M.K.Z.). The guide was then pilot tested. With this approach, subjects had the freedom to respond in their own narrative and expressive styles, and interviewers could follow up with detailed questions. It also yielded rich data for postinterview comparisons and analyses. Each interview was audio- and videotaped. An internal advisory committee was formed to review and approve the study methodology.

Study population

All female full professors and emeriti at the University of Kansas School of Medicine during the spring of 2013 were invited to participate. Of the 30 professors and emeriti, 26 (87%) agreed to be interviewed. The majority were tenured professors in the clinical sciences (see Table 1).

Data collection and analysis

Interviews lasted between one and two hours and were conducted by a female graduate student trained and experienced in qualitative research (E.V.M.J.). All interviews were recorded and transcribed. Transcripts were coded and analyzed using the constant comparative method.[7] The primary investigator (S.K.P.) reviewed all transcripts in detail and developed an initial code list for responses. Other authors (M.K.Z. and T.A.R.) then reviewed the transcripts and response categories so that all authors together could refine preliminary coding and themes. Disagreements were resolved by consensus. While multiple topic areas were queried, this report largely focuses on replies related to leadership development, specifically to Part II of the interview guide, "Information for Young Women Professionals," and Part III, "Experience as a Woman Professional." For the full interview question guide, see Appendix 1.

Three to four themes emerged from each interview section. The study used a fixed sampling strategy—all women full professors in the Kansas University School of Medicine in 2013—so sampling to the point of data saturation was not needed. We did, however, use a process of confirming and disconfirming cases to determine the most prominent themes.[8] Accuracy was corroborated during the interviews through reflexive feedback; that is, interviewers repeated what they heard back to the interviewees to seek either confirmation or correction.[9] We sought to further validate our analysis and interpretation by inviting participants to view portions of the completed interviews to discuss and provide feedback in relation to selected themes.

Table 1
Characteristics of the Participating Female Professors Interviewed at the University of Kansas School of Medicine, 2013

Characteristic	No. (%) (N = 26)
Age	
41–50	4 (15.4)
51–60	11 (42.3)
61–70	5 (19.2)
71–80	6 (23.1)
Academic track	
Tenured full professor	18 (69.2)
Full professor nontenure clinical track	4 (15.4)
Emerita (full professor)	4 (15.4)
Specialty	
Basic sciences	10 (38.5)
Biochemistry	1 (3.8)
Anatomy	1 (3.8)
Pharmacology	2 (7.7)
Behavioral sciences	6 (23.0)
Clinical medicine	16 (61.5)
Family medicine	1 (3.8)
Pediatrics	4 (15.4)
Pathology	2 (7.7)
Internal medicine	5 (19.2)
Orthopedic surgery	1 (3.8)
Neurology	2 (7.7)
Oncology	1 (3.8)

Results

As described in our methodology, we conducted 26 interviews, and three to four themes emerged from the interview sections reviewed. Below, we describe these themes within the following framework: the challenges faced during professional development; the women's coping strategies to counteract these challenges; the explanations for their academic success; and their preparation for leadership roles.

Significant challenges faced during professional development

Study participants were asked to describe how they were treated during their careers and about the specific challenges they faced. Their responses revealed four central themes: an undercurrent of bias against women, perceptions of being the "other," difficulty managing relationships with nurses, and balancing medical work with home responsibilities.

Undercurrent of bias. The women described a dual-layered cultural environment in which women professors were outwardly treated well and with respect by colleagues, yet with an underlying tone that respondents characterized as reflecting bias against women. As one professor said, "Overall I was treated professionally, but there was a sort of silent bias against women." One way this bias was evident was in assignment of tasks. One professor described "implicit bias at the … leadership level" regarding assignments, such as "this task looks like it could use a woman's touch." Bias was also detected in financial compensation: "[I was] actually hired at a lower salary than a male hired two years before me … [and not] treated as seriously as my male colleagues."

Being the "other." A perception of being the "other" was a common theme in these narratives.[8] The social process of "othering" has been defined as a series of circumstances in which a person or group is perceived by others as "not one of us."[10] The analysis of women as an "other" in relation to men has been a component of the gender inequality literature for over 60 years.[11] Multiple respondents in this study confirmed being treated as an "other" and feeling that they do not belong. In some narratives, othering led to women's relative isolation. As one professor explained, "You're almost kind of a third gender, you're not really seen in the same way as another woman." Another interviewee recounted being told by a member of the all-male promotions committee, "We don't regard you as a woman, but a force to be reckoned with." Yet another described going to a meeting

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where there was a "sea of bald heads and then you get one or two women."

The women professors also described multiple instances of being ignored, another aspect of being an "other." For example, one said, "In a meeting, I'd say something, it falls flat and then a guy says it and then it is a great idea, and you're like, 'I just said that!'" As a chief resident, another woman recalled that the chair "would always look at the two other male chiefs while discussing business and then, when the business was concluded, turn to me and say, 'Well, Judy, how are you?'"

Relationships with nurses. Another challenge was the women's relationships with nurses, which interviewees widely recognized as important: "They could be very supportive of you or your worst enemy." Several professors commented on nurses addressing them by their first names, as opposed to being referred to as "Doctor." For example, "People (nurses) are more apt to call the male doctor, 'doctor' and you by your first name." Many felt strongly that they wanted to be called "Doctor": "I'm not above being Jill" (i.e., called by first name), "but we're gonna go with Doctor here" (a professional setting). Clear relational differences between nurses (mostly women) and male residents were also mentioned: "Language patterns, communication patterns definitely [were] different for male residents and female nurses."

Work–life balance. Perhaps the most significant challenge these women described was the problem of the "second shift"—that is, household tasks and the problem of balancing work and personal life, especially the problems associated with child care. "We need to figure out the whole child care thing and have child care on-site. It's [our] problem.… Guys don't have to do that … they just come to work and work." When describing needed areas of change for women to succeed in medicine, another professor said, "child care.… Academic leadership … have to make it easier for women in training years to obtain affordable child care … I think it is a big issue.… Women need help in child care, if child care was more available, that would be a very good thing."

Coping strategies to counteract these challenges

The professors were asked to talk about how they handled these challenges described above. They responded with three main themes: downplaying difference and minimizing bias, counteracting challenges with humor, and working with the system to gain advantage.

The women we interviewed are survivors; they remained in their careers and achieved promotion to full professor despite significant challenges. One way they managed was to downplay the bias they faced. This strategy included efforts to not stand out and to minimize differences, which sometimes involved keeping a conscious distance. As one interviewee put it, "You showed up, did your work, and kept your mouth shut. You didn't aggravate anybody, you just got along." Minimizing bias also involved downplaying femininity: "Don't do girly things," one professor advised. Some interviewees thought women are held to a different standard in interactions with colleagues. One said, "Women can say exactly the same thing and in exactly the same tone, exactly the same cadence as a man, and a woman will be considered a bitch." Another commented, "In my generation we walked a delicate line between being feminine and … being unfeminine.… We held back a bit more because the opposite of being unfeminine … is being aggressive, bitchy, and that was not helpful for your career."

Others downplayed bias by ignoring it: "[I] really don't pay attention to it." Still others focused on accentuating what they had in common—professional medicine—by wearing their white coats "so everyone knew who you were." Humor was another proactive strategy: "Once you've established rapport, then you can use humor." Another strategy was to work within the given parameters of the organization, strategizing how to use the dynamics of the social environment. For example, one professor advised, "Know where the power lies and figure out how to use that power to your advantage."

Explanations for academic success

During the course of these interviews, the participants were engaged in reflecting not only on their challenges but also on their achievements. When probed about what they thought accounted for their successes, three themes emerged: personal academic excellence, hard work, and their ability to carefully construct their femininity.

For some women, academic achievement explained their success: "I graduated at the top of my class; I didn't run into anybody who stopped me from doing anything I was willing to work hard enough to do." Meritocracy and hard work were the elements these professors cited to account for their reaching full professor. The concept of "hard work" was used in two different ways by these women. Some women acknowledged that a woman would always have to work harder than a man to be taken seriously. But others used the term to illustrate that their achievements were earned and not given. Notably, this concept of hard work was used most by women who did not see gender bias as an issue in their experiences. Other women focused on their ability to ignore the biases they encountered, stating, "After a while you just know—that's just the way it is and you don't worry about it too much." Most striking from a gender perspective, a number of professors attributed their success to a carefully constructed femininity. These women consciously avoided being seen as too aggressive or too weak (another pitfall) so that they could better fit in.

Preparation for leadership roles

The women in this study were asked how they developed their own leadership abilities and what advice they would give to younger women who have leadership ambitions. Their comments reflect three major themes: developing specific skills, employing specific actions, and understanding the academic environment.

Interviewees spoke of the need for women to be proactive in acquiring positions of leadership as administrators, as mentors to junior faculty, and to gain promotion to full professor. They identified skills including listening, preparation, perseverance, self-reflection, and education. In terms of specific actions, they recommended deliberate participation:

> You have to get yourself out in front, and many times as a junior faculty you have to volunteer for committees, you have to be willing to do the work that's involved and get the projects done. This is crucial because in an academic environment success leads to the next opportunity.

Consistent with this multiplicative effect, another professor said, "Take advantage of any potential leadership positions …

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put yourself in a position that pushes yourself a bit." Promoting oneself was also advised: "You cannot underestimate (the importance of) self-promotion." Another specific action recommended was to find a good mentor or sponsor. Virtually all professors could identify one person, usually male, who had significantly helped them.

Despite achievement of academic success, several professors described having no special interest in leadership: One commented that she "never felt that I was a born leader," and another said that she "never ever wanted to do any kind of leadership thing." Additionally, they pointed out that the timing of leadership may vary: "Leadership sometimes comes later in your life." Moreover, while failure might occur, the leadership opportunity should not be considered a waste: "If it doesn't work out, just chuck it to experience … every experience has value."

Discussion

Our study documents challenges and obstacles for academic success encountered by one cohort of female full professors in a school of medicine as well as their advice for successful careers and leadership roles. Other studies have explored female faculty experiences in academic medicine[12]; however, our study is unique in focusing only on those women reaching the pinnacle of academic success, and it explores their leadership development strategies as well as challenges.

We conducted our study with an oral history qualitative methodology. Interviewees described and explained using their own words. For example, our title phrase, "silent bias," originated with one respondent and incisively depicts how these professional women perceived the male-centered environment that created obstacles to their advancement.

The challenges these women encountered included bias and exclusion, being an "other," being ignored, managing the highly gendered doctor–nurse relationship,[13] and balancing work and personal life, especially child care. These challenges are not new; other work has described similar issues.[12] In fact, our research confirms findings from Pololi and Jones[12] that faculty felt "marginalized and invisible," as if they were "cultural outsiders where women do not feel part of the bonhomie," and were subject to "stereotypes and symbols," "active discrimination," and resulting "self-doubt."

Our findings also emphasize child care, echoing reports that for several decades have targeted it as a fundamental barrier to women's upward mobility and achievement.[14,15] In our study, issues of gender bias were manifested in multiple ways. We note, importantly, that sexual harassment was not a predominant theme.

Ways to overcome similar challenges for women in academic medicine have been described by Pololi and Jones[12] as self-silencing, creating microenvironments, balancing work and life, and simultaneously holding dual identities—for example, being successful in the organization while trying to change the culture. Bickel[16] has noted strategies to overcome challenges—for example, be ready for conflict, develop an assertive style, or forge relationships. Our interview data from women achieving full professorships confirm reliance on nonengaging, nonconfrontational strategies: downplaying difference, ignoring gender bias, keeping social distance, proactive professional participation, humor, displaying professional symbols, picking battles carefully, and working within the system. One strategy used by our interviewees has previously been neglected in the literature. A number of professors in our study spoke of consciously downplaying their femininity in both appearance and behavior. They advised carefully constructing one's femininity to strike a balance between appearing too assertive or too weak.

This study provides unique and significant results not only in validating strategies and coping mechanisms previously reported but also by confirming and illustrating that these tactics were used and considered key to success among those few women in academic medicine who have risen to the highest academic ranks. It is important to understand that major themes reported were representative across specialties and departments and did not come from a small cluster of women in a single unit.

A limitation of our study, however, was our inability to construct stories or connections linking individual professors' experiences, particularly challenges and obstacles, with their coping strategies ultimately associated with their academic success. That was beyond the scope of our study but would be an excellent research topic for the future.

Additionally, it is not clear the extent to which coping tactics that facilitated success in the past would be useful still in the present day. While they mitigated the gender challenges these full professors faced, it is possible that employing these strategies diverted attention and energy from what would have been even more successful careers in a less biased environment. Our study is further limited because we cannot determine if these strategies also were used by female faculty who did not achieve full professorship or faculty who self-terminated.

Our findings also contribute to work on leadership development among women in academic medicine. Barriers to leadership are often described as a "glass ceiling," an image of upward mobility transparently obstructed for women. This image fails to convey the complexity and variety of challenges that women face. A better metaphor for what confronts professional women is the labyrinth[4]: the idea of complex navigation through multiple obstacles and challenges requiring a variety of organizational and personal strategies to succeed. Our respondents advised developing specific skills, employing specific actions, and understanding the academic environment. These recommendations focused on what women can do to increase their leadership abilities if interested; not all professors were. Choosing the right mentor was a particularly important example of developing resources for leadership. The advice and recommendations reported here, many of which are not new, take on additional significance for women junior faculty because they come from women like themselves, many of whom have moved successfully into leadership positions.

Organizational strategies supporting leadership development were also important. As one professor noted, a "leadership-friendly" environment must also exist. Organizational models to decrease the leadership gap for women in health care can be found in the literature. To address 24 years without change in the percentage of

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female CEOs, the American College of Healthcare Executives recommended specific prodiversity practices regarding recruitment (require women candidates for senior-level positions), advancement (offer career development programs), and strategy and policy (ensure female representation on key committees).[3] A recent *Harvard Business Review* article described management inventions "that work": for example, increasing awareness of female leader prejudgments, changing the long-hours norm, reducing subjectivity of performance evaluation, using open-recruitment tools, preparing women with appropriately demanding assignments, and establishing family-friendly human resource practices, including employee-sponsored on-site child care.[4] Institutional support for these programs is essential.

The consequences of barriers to female advancement and leadership are well described in the business world, where barriers undermine organizational performance. Fortune 500 companies with high numbers of women executives have outperformed their industry on all measures of profitability.[17] Clearly academic medicine has different performance outcomes; however, this evidence suggests that women leaders have a positive effect on organizational performance. Reducing obstacles to leadership can also lower attrition; increase morale, commitment, and retention; and decrease expenses.[18] A less discussed consequence of structural and attitudinal barriers to women's leadership is interference with the leadership development process.[19] Novice to expert leadership requires a developing orientation, from an individual orientation to a collective identity, from "doing to being," "self to others."[20] Novice leaders need to identify role models, yet women have fewer options. They also receive less latitude for making mistakes in the learning process. The absence of senior female leaders clearly hinders the development of future female leaders.

In summary, this study has drawn valuable information from the career experiences of senior women professors. It confirms the experiences of women in medicine, which likely differ in gendered ways, such as the silent bias perceived by our participants. These differences, some quite challenging, required these women to develop complex coping strategies to persist and achieve in academic medicine. Our focus on senior women confirms that those reaching the highest academic positions have shared many of the same challenges reported in previous studies of younger professional women. Clearly, this is a group of survivors. Their wisdom and advice have served them well and undoubtedly hold valuable lessons for current women in medicine. What our study cannot decipher is the extent to which these coping strategies—such as withdrawing or downplaying gender differences—are still relevant and necessary in today's academic medical environments. We hope they are not; however, they may be in some environments. Our interviewees' recommendations also touched on more generic strategies for professional success, including those regarding leadership development.

Overall, our study tells the story of how one group of high-achieving women in medicine addressed the labyrinth of challenges, obstacles, and opportunities they faced. Their experiences and advice should challenge younger generations to explore these paths to success. We would hope that the next generation would have less cause for the rich array of coping strategies employed by their predecessors and that they would enjoy increased institutional support for their work.

Acknowledgments: The authors would like to acknowledge the full professors at the University of Kansas School of Medicine who gave selflessly of their time to participate in the oral history project: Leslie Heckert, PhD, Delores Furtado, PhD, Carol Lindsley, MD, Marty Barnard, PhD, Sharon Lynch, MD, Belinda Vail, MD, Beth Levant, PhD, Barbara Lukert, MD, Elizabeth Pennick, PhD, Amy O'Brien-Ladner, MD, Lillian Pardo, MD, Patricia Thomas, MD, April McVey, MD, Sally Rigler, MD, Theresa Shireman, PhD, Kim Templeton, MD, Grace Holmes, MD, Kim Richer, PhD, Sarah Taylor, MD, Ann Davis, PhD, Pam Shaw, MD, Dianne Durham, PhD, Rebecca Horvat, PhD, Jan Campbell, PhD, Mary Zimmerman, PhD, and Susan Pingleton, MD.

Funding/Support: This project was supported in part by the Joy McCann Professorship in Women in Medicine and Science, University of Kansas School of Medicine.

Other disclosures: S.K. Pingleton and M.K. Zimmerman had dual roles as authors of this paper as well as participants in the study it describes.

Ethical approval: This study received approval from the human subjects committee of the University of Kansas Medical Center.

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Appendix 1

Interview Guide for the Female Professor Oral History Project at the University of Kansas School of Medicine, 2013

Part I. Specialty and Background

1. Scope of Professional Work
   - I'd like to get a picture of the scope of your professional work.
   - Tell me about your areas of specialization.
   - What inspired you to choose this specialty? (Was there a person? A life event?)
   - High school students might be listening to this interview. How would you describe your specialty to a young person?
   - When did you realize that you wanted to go into medicine? What experiences led you to science and medicine? Was there something that happened in high school or before?
   - Of the many things you have done over your career, what are you most proud of?

     (Success statement, e.g., successful patient, research, discovery)
2. The "Landscape" of Medicine
   - I'd like to get a "big picture" overview of what the medical profession was like for a woman when you began your career.
   - How many women were involved as students? As teachers? What kind of work expectations were there for women?
   - What about how school or work influenced family life?
3. Evolution of Career
   - Tell me about the key moments in your career. This could be a key moment of growth, transition, change, success, or integration. How did this change your career direction? What did you learn? How did this change your practice (in research, clinical, administrative)?

Part II. Information for Young Women Professionals

1. What advice would you give to young women today to help them negotiate professional challenges they may face because they are women?
2. Mentoring
   - What qualities should a young woman look for in a mentor?
   - What should more senior women think about in order to successfully mentor other women? What impact can a good mentor have on a woman's career?
   - Tell me about your significant mentors.
   - How did this relationship develop? Who instigated the relationship?
   - How did the mentor help your career?
3. Sponsorship
   - Now I want to introduce the idea of a special mentor. A sponsor is a little different than a mentor. New ideas about sponsorship vs mentorship are changing the way these roles are perceived. A mentor is someone who acts as a sounding board or a shoulder to cry on, offering advice as needed and support and guidance as requested. Mentors might not expect anything viable from the mentee in return; however, sponsors are more vested in their protégés, offering not just guidance but actively advocating for them, even taking responsibility for their advancement because they believe in them.
   - Do you think any of your mentors were sponsors? If so, tell me about her/him. (Was it significant that this sponsor was a wo/man?) Did you see a gender difference in mentoring styles between men and women?
   - How did that person shape your career? Or manage your career?
4. Part-Time Work
   - Today more women in medicine are working part-time. Did you ever consider working part-time? What prompted your consideration? What factors were involved in your decision? Did you work part-time?
   - How did (would have) part-time work affect(ed) your career development? Looking back would you have made the same decision? What advice would you give today to young women who are thinking about part-time work?
5. Leadership Development
   - How do you think women can best prepare themselves for leadership roles, especially in contexts still dominated by men? How did you develop your leadership abilities? What advice would you give to younger women who have leadership ambitions?

(*Appendix continues*)

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Appendix 1

(Continued)

Part III. Experience as a Woman Professional

1. Handling Challenges and Obstacles
   - I'd like to get a picture of how you were treated as a woman professional.
   - How were you treated by peers? By those in authority? By those in lower positions (interns or residents)? Support staff (nurses)? Patients? (Were you taken seriously by your patients?)
   - Please tell me about situations you recall and how you handled them.
     - Being ignored, being invisible, not making a wave
     - Being ignored in meetings
     - Raising a point only to have a male colleague take credit for it
     - Performance pressure
     - Socialization
     - Birth control
   - Tell me about ways in which you proactively worked against these pressures to build your credibility and visibility as a woman professional.
   - I'd like you to compare your experience with what women face today in the profession. In what ways do women face similar issues? How are things different?
   - What needs to change to bring real gender equality to your field?

Part IV. Looking Back at Career and Personal Decisions

1. There are lots of instances where career affects personal decisions and where personal decisions affect a career. Tell me about a moment when you faced that kind of situation. Looking back, would you still make the same decision? Why?
2. I asked you earlier about accomplishments. What about things left undone?
   - Are there any projects that you wish you could have completed? Roles you wish you could have taken on? Skills you wish you could have developed?
   - Why were you not able to complete or fulfill these goals? What was the effect?
3. How do you think being a physician has affected (and still affects) your social and personal relationships? I'm thinking here of the development of friendships, intimate relationships, and connections with family.
   - What impact has your work had on your leisure time?
   - What decisions have you made or had to make about the balance of work and leisure? How has work affected your leisure activities and hobbies?

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