Narratives of Participants in National Career Development Programs for Women in Academic Medicine: Identifying the Opportunities for Strategic Investment

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Abstract

Background: Academic medicine has initiated changes in policy, practice, and programs over the past several decades to address persistent gender disparity and other issues pertinent to its sociocultural context. Three career development programs were implemented to prepare women faculty to succeed in academic medicine: two sponsored by the Association of American Medical Colleges, which began a professional development program for early career women faculty in 1988. By 1995, it had evolved into two programs one for early career women and another for mid-career women. By 2012, more than 4000 women faculty from medical schools across the U.S and Canada had participated in these intensive 3-day programs. The third national program, the Hedwig van Ameringen Executive Leadership in Academic Medicine[®] (ELAM) program for women, was developed in 1995 at the Drexel University College of Medicine.

Methods: Narratives from telephone interviews representing reflections on 78 career development seminars between 1988 and 2010 describe the dynamic relationships between individual, institutional, and sociocultural influences on participants' career advancement.

Results: The narratives illuminate the pathway from participating in a career development program to self-defined success in academic medicine in revealing a host of influences that promoted and/or hindered program attendance and participants' ability to benefit after the program in both individual and institutional systems. The context for understanding the importance of these career development programs to women's advancement is nestled in the sociocultural environment, which includes both the gender-related influences and the current status of institutional practices that support women faculty.

Conclusions: The findings contribute to the growing evidence that career development programs, concurrent with strategic, intentional support of institutional leaders, are necessary to achieve gender equity and diversity inclusion.

Introduction

ACADEMIC MEDICINE HAS INITIATED changes in policy, practice, and programs over the past several decades to address persistent gender disparity and other issues pertinent to its sociocultural context. We designed and conducted a multifaceted study of the impact of three national career development programs on women's career outcomes and advancement in academic medicine. The study included surveys, interviews, focus groups, and an analysis of a national database.¹ The findings reported in this study address the general experience of participants that emerged from their individual narratives.

The three programs include two sponsored by the Association of American Medical Colleges (AAMC), which began a professional development program for early career women faculty in 1988, directed at building skills and confidence critical to advancement at each of the specific career stages. By 2012, more than 4000 women faculty from medical schools across the U.S and Canada had participated in these intensive 3-day programs.

The third national program, the Hedwig van Ameringen Executive Leadership in Academic Medicine[®] (ELAM) program for women, was developed in 1995 at the now Drexel University College of Medicine. Its purpose is to increase the numbers and effectiveness of senior women

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leaders in health science organizations. The program accepts nominations from the Dean or other leaders of the academic health center who must provide evidence of a clear commitment to developing the candidate for formal or informal advancement and leadership roles within the 5 years following ELAM.^{1,2,3}

Prior studies of leadership development programs and national surveys of career development experiences describe a common core of benefits for women who have attended these programs: networking with relief of professional isolation; identifying mentors; and gaining knowledge and skills in negotiation, finance, and interpersonal and leadership effectiveness.^{1,2,4-6}

The current study builds upon these prior studies, using a model of women biomedical faculty career development within a complex system of institutional and individual influences.^{7,8} In this model, program participation has an important influence and interacts with the elements of the larger system. We used this framework to examine influences and impact and outcomes of participating in the career development programs, on individuals and their institutions. Using the narratives emerging from telephone interviews with former program participants, we present our understanding of the dynamic relationships between individual and institutional elements in a larger academic and social system. The narratives illuminate how participating in a career development program prepared them to navigate the system of academic medicine and that few of their institutions had strategies to receive a return on their investment. Our findings contribute to the growing evidence that career development programs, concurrent with strategic, intentional support of institutional leaders, are necessary to achieve gender equity and diversity inclusion.⁹

Materials and Methods

Human subject institutional approvals were obtained from the University of New Mexico, MD Anderson Cancer Center, and Drexel University College of Medicine.

Participants

The researchers invited women faculty who had participated in one or more of the career development programs to participate in a web-based survey and follow-up telephone interview. In 2011, AAMC staff collaborating with the research team sent an email invitation to 2779 women who held faculty appointments at the time of the survey in academic medical institutions in the United States and Canada, and who had participated in at least one of the three programs. The email invitation requested their consent to participate and contained a hyperlink to a survey inquiring about their experience in the programs.¹ Of the 879 who completed surveys, 243 agreed to be considered for a telephone interview and provided contact information (Table 1, column 6).

We sorted the respondents into 5-year cohorts based on their time of program attendance (Table 1). Some women fell into more than one cohort, depending on whether they had attended more than one program, and the 5-year period in which the second program attendance occurred. AAMC data show that over the 20 years under study, there has been a substantial increase in women in academic medicine,¹⁰ who in earlier years may have been the only women faculty in their department; but by 2010 were nearly 35% of academic medical faculty. To capture the experience of the most senior women, we invited all ($n=9$) from the first cohort to participate in an interview (1988–1994); each of these women had attended more than one program. Next, from each of the three subsequent cohorts (1995–2010) we invited those who had participated in at least Mid-Career Women in Medicine (MWIM), ELAM, or both. We had a randomly generated list from REDCap, sorted by ID number (*e.g.*, 001, 002, *etc.*). These individuals were further sorted by program(s) groups attended (*e.g.*, ELAM only, MWIM only, Early-Career Women in Medicine [EWIM] and MWIM), and within each group, by cohort based on time of first program attended. Our research assistant began contacting women starting with the most senior women, resulting in 30 individuals who agreed to

TABLE 1. INTERVIEW POOL FROM WHICH INTERVIEWEES WERE PURPOSEFULLY SELECTED

Program	1988–1994	1995–2000	2001–2005	2006–2010	Total by program
Individuals attending one program					
EWIM	0	17	42	33	92
MWIM	0	4	24	22	50
ELAM	N/A	20	19	6	45
Total by cohort	0	41	85	61	187
Individuals attending two programs ^a					
EWIM + MWIM	2	8	4	2	16
EWIM + ELAM ^b	0	EWIM=3	EWIM=1 ELAM=1	ELAM=3	4
MWIM + ELAM	1	8	5	5	19
WIM + ELAM	WIM=6	ELAM=5	0	ELAM=1	6
Total by cohort	9	24	11	11	55
Total number of individuals					243
Interviewees					45
Interviewees year of attendance ^c	9	16	19	32	76

^aEleven in the pool had attended three programs and all included ELAM in the combination.

^bOne of the three EWIM attendees in 1995–2000 went to ELAM in 2001–2005 and the other two in 2006–2010; the 2001–2005 EWIM attended ELAM in 2006–2010.

^cInterviewees may have attended more than one program, which explains the difference between 45 (individual interviews) and 76 (number of program experiences).

ELAM, Executive Leadership in Academic Medicine®; EWIM, Early-Career Women in Medicine; MWIM, Mid-Career Women in Medicine; N/A, not applicable; WIM, Women in Medicine.

participate in an interview over a 6-month period. Once we had reached saturation with the initial group of 30 women, it became apparent that we were not capturing the perspectives of more recent attendees to the early and mid-career career development programs and, to achieve temporal balance, we reached out to a group of early and mid-career women (10 who had attended only EWIM and five who had attended both EWIM and MWIM).

Semistructured interview guide

Four of the authors had participated as trainees, taught, or designed program curricula for these programs. After piloting, while there were no substantive changes to the questions, we added more detail to the introduction of the interview guide about the overall research aims and objectives and the specific intent of the interview. Responses from the original survey (*e.g.*, current title and location, program(s) attended and dates, goals for attending, skills and knowledge gained, *etc.*) provided insights about each interviewee that richly informed the interview process. During the interviews, open-ended questions such as “What were your motivations for attending [name of program]?” were further probed with questions about strategic career decisions, family considerations, and institutional involvement. After questions such as “How did the [name of program] experience influence your career?” we asked additional questions about skill development, networking, strategic career decisions, and institutional support both before and after attendance.

Interview procedures

SLN conducted the interviews. Although each interview was scheduled for 45–60 minutes, the majority lasted a full hour or more. The interviewer phoned at the prearranged time, and provided participants with the opportunity to cancel or reschedule. After consenting to be interviewed, participants were reminded that the conversation would be digitally recorded and transcribed. At the conclusion of each interview, a thank you email was sent with a gift card.

Data analysis

The tapes were transcribed and personal information was redacted, preserving confidentiality and anonymity during analysis. The objective of our qualitative analysis was to reconstruct the general experience of the academic women faculty who participated in these programs. The themes, influences (promoting or moderating), impacts, and outcomes shown in Table 2 were derived from a preponderance of evidence in the interviews; and the quotes presented are intended to be representative of that evidence.

D.L.H., S.L.N., and G.C. independently coded transcripts to create consensus on a coding structure. This team continually reviewed transcripts until a reliable coding structure was produced. The themes and phrases were then compiled using NVivo 10 software. Data preparation included development of matrices of text corresponding to the major categories and subcategories in the coding structure.¹¹ This allowed another layer of analysis in support of plausible, cohesive interpretations of the data. A subsequent phase of analysis engaged all the authors in a review of the article, with particular reference to the individual and institutional systems of influence from our conceptual model. This enhanced the analysis because it provided a variety of research lenses—qualitative research, quantitative epidemiologist, basic scientist, clinical educationalist—and different career experiences.

Results

Interviewees

Forty-five women participated in interviews. At the time of interview, 67% (30) were MDs, 27% (12) PhDs, and 7% (3) MD/PhD; 56% (25) were full professor, 27% (12) associate professor, and 18% (8) assistant professor. By degree held, our interviewees mirror the larger survey sample.¹ Women were almost evenly distributed geographically among four regions of the country. When asked in the original survey

TABLE 2. SYSTEMS OF INFLUENCES AND SOCIOCULTURAL CONTEXT IMPACTING WOMEN'S CAREER DEVELOPMENT IN ACADEMIC MEDICINE

<i>Systems of influence</i>	<i>Precareer development program</i>		<i>Postcareer development program</i>	
	<i>Promoters</i>	<i>Moderators</i>	<i>Impacts</i>	<i>Outcomes</i>
Individual	Reduce isolation and develop network of women colleagues; find woman mentor; gain skills for academic advancement	Ambition and motivation	Skill development; self-awareness; academic advancement; increased organizational visibility; broader perspective of institutional culture	Informal leadership Formal leadership
Institution	Financial support; advocacy for women; recommendations from women colleagues	Pacification or individual reward	Women-driven efforts to increase institutional capacity through culture change	
<i>Sociocultural context of women's career development</i>				
Individual	Family support and resources; parenting/family responsibilities; passion, patience, and persistence; sponsorship			
Institution	Gender bias; institutional policies for academic advancement and to engage women in leadership; financial resources			

about their primary focus, most assistant professors identified research (6); most associate professors identified clinical (5) or research (4); and full professors identified primarily an administrative (11) or clinical role (8). Over half 57% (21) had attended EWIM, 67% (30) MWIM, and 53% (24) ELAM. As shown in the far right column of Table 1, nearly two-thirds ($n = 30$, 67%) of our sample had participated in multiple career development programs, resulting in 76 career development program events.

Systems of influence and sociocultural context

The data revealed a host of influences that promoted and/or hindered career development program attendance and participants' reflections about their ability, and those of their institutions, to benefit after the program in both the individual and institutional systems (Table 2). The context for understanding the importance of these programs to women's advancement is nestled in the sociocultural environment, which includes both the gender-related influences and the current status of institutional practices that support women faculty. These findings are summarized below and representative quotes are provided in Tables 3–5. The quotes in the text are not duplicated in the tables.

Preprogram individual influences

Promoters. Regardless of career stage, women reported that they were motivated to attend the programs to reduce isolation, to develop a network of women colleagues, and to find women mentors (Tables 2 and 3). In addition, assistant (early career) and associate (mid-career) professors recalled a desire to prepare for promotion, whereas full professors were motivated to develop skills for leadership. Women noted that two reasons to attend a career development program were to reduce their professional isolation and to develop a network of women colleagues. The exposure to “like-minded women,” even if they did not follow up to connect after the career development experience, was “just inspiring and just changes how I view myself and view opportunities.” The interviews revealed that these women felt it was vital to find women outside their departments and institutions who had “shared experiences” and who could provide emotional support, a learning community, research collaboration, and/or a women's interest group. Women spoke with dismay about how isolated they felt at their home institution. Women who attended the programs between 1988 and 1994 reported that they were one of few women in their medical school, in their division/department, and in leadership positions.

Women who attended the programs since 1995 spoke less of isolation and noted the presence of women faculty in their schools. While acknowledging the role of men as mentors and sponsors, many spoke of seeking to identify women mentors from the group of program participants and program faculty.

Women at early and mid-career stages reported the need to understand the promotion and tenure process and how to progress in the academic setting. Many anticipated that they would prepare and submit their tenure packet in the next few years. They were motivated to take the opportunity to learn how to make their promotion packets polished and complete. Although some MWIM and ELAM attendees were still

concerned with academic promotion, many sought skills to prepare for leadership positions.

Moderators. Our analysis revealed that ambition and motivation moderated (promoted or hindered depending on the context) a woman's decision and ability to attend a career development program, and their postprogram impacts and outcomes. Study participants described themselves as professionally ambitious; they were willing to take risks, take charge, and rectify gaps in their skills/knowledge. They entered the program motivated “to learn what I need to do to_____” and were persistent in pursuit of their goals.

Preprogram institutional influences

Promoters. Our model acknowledges the critical interdependence of individual values and responsibilities and institutional goals (Table 3). The interviewees discussed key promoters in the academic system that influenced their likelihood of attending a career development program:

- Financial support from their department chair, division chief, and the Dean's office enabled women to participate in career development program.
- Institutions that had a history of advocacy for women were considered by the participants to have a supportive environment for women faculty.
- Recommendations from women colleagues—although many women received institutional funds to attend the program, they often learned about it from women colleagues and leaders, rather than through an institutional call for applications.

Moderators. Generally, the institution played a passive role in decisions to attend a program, “I just happened to find out about it and applied. The institutions are not necessarily passing this on to the younger faculty members.” Attendance was sometimes used as a pacifier or reward for good behavior.

Postprogram individual and institutional impacts

Our analysis showed that postprogram impacts resulted from an interaction of individual and institutional influences (Table 4). We hypothesized that women's attendance would influence their career outcomes and those of their institutions. Individual impacts were:

- Skill development—interviewees noted the importance of building a skillset throughout their careers: negotiation, interpersonal skills, conflict management, time management, goal setting, strategic career planning, self-promotion, and communication.
- Self-awareness—activities such as the Myers-Briggs or 360 evaluations of leadership attributes helped to develop greater self-awareness (*i.e.*, critical appraisal, self-assessment, reflective thinking). The combination of skills and self-knowledge gave women confidence to stay engaged in the effort to advance their career.
- Academic advancement—women used their new skills to advocate for and to attain promotion and tenure career milestones.

TABLE 3. PREPROGRAM INDIVIDUAL AND INSTITUTIONAL SYSTEMS OF INFLUENCE

	Quote
Individual system	
Promoters	
Reduce isolation	"I would go weeks at a time in my professional setting and never see another woman ... they were just not around. So, that sense of isolation was so considerable."
Develop a network of women colleagues	"The [career development program/CDP] offered me the chance to meet other women and talk about the challenges we are facing. The networking that you gain from having interactions with other capable women is really important."
Find woman mentors	"I had one mentor, a man. I've never had a female mentor and it would be nice to have a female academic mentor so that was one of my motivating influences for going to both [CDPs]." "Academic medicine is more challenging as a woman. The traditional path just tends to kind of exclude women the higher you go up. So the support of women mentor who'd gone or is going through what I'm going through with kids, husband, would be helpful."
Gain skills for academic advancement	"For [EWIM] I felt like I didn't have a good grasp on what the tenure process was and I wanted to make sure as I got closer to the point where I'd have to submit my promotion packet that I knew all the pieces that had to go into it and knew the strategies for making it polished and complete. And I got that in a huge way ... it made my process of getting tenure fairly painless." "I was already the director of the data center and was pretty much newly named the co-director of the institute for clinical research education so it seemed like a good time to build and develop my leadership skills. So, the mid career (MWIM) was a good opportunity for me to evaluate where I am, where I'm going, what are my next steps." "For ELAM I started out wanting to get more clarity on which direction to move in my career because I had opportunities for leadership, both at the department level and then through the Dean's office. So, I was wanting to have the time to reflect and really think about where I could make the greatest contribution and what seemed to fit best with my own personal vision of what I could do and what I wanted to do with my career."
Moderators	
Ambition and motivation	"I'm an ambitious person ... I sought it [CDP] out and paid for it myself. My department, the university would no longer provide financial support for us to attend those meetings." "I've always been interested in opportunities to grow and learn new skills so anytime opportunities have been made available to me I've always tried to avail myself of them"
Institution system	
Promoters	
Financial support	"I have good support, both in time and in money to attend [CDP]. For someone to have paid for me to attend is a pretty big thing. I have had support both from our program for women in internal medicine on the departmental level and from the school of medicine level."
Advocacy for women	"This campus has a long history of women studies and advocacy for women. So it's a very proactive, liberal culture that's focused on women in many avenues."
Recommendations from women colleagues	"I think the early one [EWIM] was suggested by other women and recommended that I apply to this, because within my surgical department, I was kind of on an isolated island. I didn't know a whole lot about AAMC at that point." "She was in the academic affairs office. She was the associate dean [or] assistant dean of academic affairs and she was also a colleague of mine and she is the one that encouraged me to go [to the CDP]."
Moderators	
Individual reward or pacifier	"My chair told me after promising to expand my job that he was going to have a national search for my position ... So, I said, 'Ok, you want me out of here, and you want me to keep quiet. I want to go to [CDP] and I want you to give me the tuition and time to do so.' He said fine." "I wouldn't say that they [institutional leaders] weren't supportive of my attending. ... But I've earned it by being a good citizen, a good soldier, and contributor."

TABLE 4. POSTPROGRAM INDIVIDUAL AND INSTITUTIONAL IMPACTS

<i>Impacts</i>	<i>Quote</i>
Individual system	
Skill development	“[Career development programs/CDPs] start giving you the skills like negotiation, career planning, self-promotion, how to build a better CV and how to talk with your chair ... but then I took what I learned and started using the skills.”
Self-awareness	“I thought that the self-awareness (exercises) where they train you how to evaluate your own behavior ... like the personality type that you tend to be ... (helps you) to be happy in your own skin and to do the things that are true to yourself.”
Academic advancement	“I felt I had to push a little bit with promotion ... my chair wanted me to put it off because he’s so busy. I said ‘No I really want to go up now. I know I have these couple more papers under review that will be accepted by the time the full committee reviews it. And so I’ll meet your complete standard, let’s not sit and wait.’”
Increased visibility in the organization	“The unexpected benefit of [CDP] for me was the exposure that it gave me to meet other leaders on my campus and interact on a different level. I think it was ultimately one of the most powerful parts of the program.” “I have to articulate my dreams and plans ... and get them out there in front of decision-makers and others who can help me make things happen. Basically, I learned to not hide my light under a bushel.”
Broader perspective of the institutional culture	“Going to [CDP] was pivotal in that it gave me a lot of insight into how the university operates—the mechanics and the reasons why certain things are done certain ways ... things I had observed around me for years but didn’t know how to interpret. The [CDP] experience was like veils being lifted!”
Institution system	
Negligible if not specifically sought	“It’s kind of benign neglect ... the administration doesn’t stand in your way but they’re not going to put any goodies in your way either—it’s not particularly supportive.” “The dean appointed me to the search committee for the chair search—I had requested that, so he honored that. I met with him several times after I’d finished the program at my request just to check in and see you know how things were going, if there was something else he needed me to do. There never was.”
CDP women’s efforts to achieve goals and build institutional capacity	“I really focus on making it easier for women, underrepresented minorities, foreign medical students—everyone who considers themselves an ‘other’—... to advance with hopefully less heartache and struggles than I did.” “I direct programs for the advancement of women here and I have been doing that for a few years. So some of what I learned at [CDP] is being integrated into our existing programs. For example, we have an annual women in medicine leadership conference that I direct and run.” “There were several women from [institution] who attended [CDP] ... we formed a small network that led to what is now the Provost’s committee on Gender Equity.”

- Increased organizational visibility—women reported the programs helped them learn that professional development, exchange of capital, and visibility were critical for advancement.
- Broader perspective of the institutional culture program participation led to an awareness of the complexity of academic medicine and a motivation to gain a deeper understanding of the institution as a system.

Institutional impacts resulted from women’s efforts to create a culture conducive to women and gender equity and not the result of strategic planning by institutional leaders to maximize their investment. Many women reported that there was little evidence of intentional strategies to put their skills and insights to good use in building institutional capacity. Given this powerful experience, interviewees spoke of the ways in which they filled this void by working to create a culture conducive to women’s success. Program graduates described initiating or joining specific campus programs,

including mentoring programs, resident education initiatives, women’s interest groups, and serving on committees to enhance diversity and gender equity.

Sociocultural context

For these women, career development occurs within the context of family life and work environment (Table 5). Features within the sociocultural context either promote or hinder career advancement, and essentially create the conditions for the speed, ease, and likelihood of advancement. The influence of the sociocultural context persists throughout a woman’s career (as is indicated in Table 2).

- Benefits of family support and resources—a variety of supports are needed to balance career advancement and family priorities. Women consistently and spontaneously mentioned the need for a supportive partner or parents willing and able to assume care of their grandchildren.

TABLE 5. FEATURES OF THE SOCIOCULTURAL CONTEXT THAT INFLUENCE CAREER DEVELOPMENT AND OUTCOMES

	Quote
Sociocultural context	
Family support and resources	<p>"I have an unbelievably supportive husband ... [who] takes great joy in my accomplishments, is very supportive, and has been a 50/50 parent. It would be very hard without a 50/50 parent."</p> <p>"I made a choice to become a single mother and I had really incredibly supportive parents. When I looked to move, I negotiated with them on whether or not they would be willing to move. My parents are in their 70's ... it's very stressful for them to have moved. They bought a house three doors up the street from me and they're part of the kids' everyday life."</p>
Parenting/family responsibilities	<p>"I didn't become fulltime until my daughter was in sixth grade and my son was in fourth. I had the housekeeper let them in after school until my son was ready to open up the house. I had such an intricate system where I had the mailman's wife driving them places after school."</p> <p>"Yea, [having a husband/partner at home] is not without its costs though the kids scrape their knee they run to him, they don't run to me now. It's a role reversal. My career has flourished but in a lot of ways he's got the better end of the deal."</p> <p>"I don't anticipate being able to move to another position until my son goes away to college and that's going to be in another 6 years and by that time I'm going to be in my late 50's. That has an impact on my leadership aspirations because I really should be more mobile than I currently am."</p>
Passion, patience, and persistence	<p>"I always wanted to be in academic medicine ... my father was a physician as was his father. I love the intellectual challenges, being around amazing brilliant people, and helping to shape the next generation of doctors and researchers."</p> <p>"But I just had to decide whether I was going to get angry about it or whether I was just going to say, okay you need one more year, fine. And just swallow it."</p> <p>"I've had several different roles ... and I think (the reason) most women in academic medicine who have managed to stick it out and continue to advance is by assuming all of the different roles."</p>
Sponsorship	<p>Before 2000: "I became associate medical director for one of the largest hospitals in the country and was the highest ranking woman clinician in the department. There were two other women who were high ranking in the hospital ... My chair retired and a new administration came in and within a year they had managed to get rid of all three of us."</p> <p>Since 2000: "As an ELUM, I think that the biggest thing is that we continue to do what we can to facilitate career development for individual women."</p> <p>"There are a lot of women in the medical dean's office—the senior associate dean, the dean of students, the dean of research, the administrative dean, a clinical dean...many of these women have gone to ELAM....all are really good at sponsoring people. That's how I got my position in the dean's office—the [assoc dean] said '[name] would be good for that.' That's how the research director got her position and the research associate dean got her position."</p>
Gender bias	<p>"It's pretty rare for us to face blatant sexism in the workplace, but a lot of what I see happening is subtle and more devastating. It's the offhand comment that's made at a meeting or a lot of eye rolling when you ask a question. It's an atmosphere and an attitude as opposed to an actual action."</p> <p>"For the first 8 years I was single parenting three kids, on call for critical care 33% of the time, on call for pain 20% plus OR every single day. When I went to my chair for review, he said, 'You're not very productive academically ... I know you're on call and busy.' I say acknowledge it for Christ-sake I'm busting my ass."</p> <p>"I've been in meetings where I'll say something and it doesn't get much of a reaction and not 5 minutes later a guy in the room will say the exact same thing and everyone thought it was a great idea."</p> <p>"The men get these roles without programs to prepare themselves. Men are assumed to be prepared and ready, and the women are encouraged to do all this self-improvement work to be ready, but they'll never be ready because males and females are not seen in the equivalent way."</p>
Institutional policies for women faculty retention	<p>"Our dean is invested in recruiting women leaders, supporting women leaders, supporting professional development ... and we've had some success with policy efforts—it took us 3 years, but we just lengthened our tenure clock so we have time out for childcare, for example."</p>

(continued)

TABLE 5. (CONTINUED)

	<i>Quote</i>
Financial resources	<p>“Our policies related to part-time faculty are not as supportive as I would like. Our part-time faculty are disproportionately women, usually trying to balance children at home. Our part-time faculty are not eligible for health benefits. ... There’s no tenure track. They’re not able to serve on key committees and not able to run for some governance position.”</p> <p>“When the going gets tough, it’s like the wagons circle ... and the administration is afraid to get off the dime—if they make any big moves, they might not make the right move. There is a lot of uncertainty now. If there was ample funding I think the administration would be much more open to hearing different possibilities and ideas for [the advancement of] women and minorities.”</p>
Individual and institutional outcomes	
Informal leadership	<p>“I am in the position now of encouraging young women to go up for promotion, but that was certainly not something I ever had. There are seven of us now who do programs for women in the medical school. We call them Sunrise Theories where during an hour breakfast one of us will talk about mentoring or career development.”</p> <p>“I’m now part (of) a small group ... working with the associate dean for diversity in faculty affairs ... we are giving women opportunities to be a part search committees or applications or whatever to have a seat at the table.”</p>
Formal leadership	<p>“I learned from ELAM that if you had a moment with [someone in power] what would you do besides just chit chat? I did have that opportunity that day, and I said that I really admire her and I’ve been watching her and seeing if I could do your job someday. She said ‘You can do my job. Why don’t you come shadow me.’ I never got the opportunity to do it because within a week she asked me to be vice president of research.”</p>

- Demands arising from parenting/family responsibilities—women shared poignant stories of the challenges of being wife, mother, and daughter that included creative solutions to balance a career and a family, including the important contributions to childcare by spouses and grandparents. Women reported that their family responsibilities reduced their geographic mobility and limited leadership opportunities.
- Passion, patience, and persistence—women at every career stage shared the attributes of passion for the features of academic medicine, patience with continual challenges and persistence, which was manifest in their willingness to assume a variety of roles.
- Sponsorship—before 2000, women were sponsored for leadership roles primarily by male leaders. Even after these women attained leadership positions, they were vulnerable to the presence or absence of that man. Beginning around 2000, there were women, especially ELAM graduates, who held positions with enough visibility and power to sponsor other women for these roles.
- Gender bias—nearly all the women who were interviewed described the adverse impact of gender on their experience in academic medicine. The environment in which women work includes both overt and covert sexism and gender bias. Their stories provide evidence of the devaluing of women’s contributions; the perception that women need training to be successful in the workplace; the assumption that men are, by nature, prepared for any role; and the belief that women must conform to general sociocultural norms and the male-dominated norms of academic medical institutions to survive.

- Institutional policies for women faculty retention—some institutions have developed policies to ameliorate the impact of childbirth and childrearing on a woman’s career trajectory as a means of supporting women faculty retention (*e.g.*, flex time, nontenure positions, and “stop the clock” for promotion). The reality of using part-time or flex-time options and available academic track choices (tenure, nontenure, clinical, research, and academic) does not appear to reap the expected benefits.
- Financial resources—motivations of an institution to develop new initiatives are closely linked to its fiscal solvency. The uncertainty of the availability of extramural funding combined with changes in the healthcare system financing models have affected institutional willingness and capacity to develop initiatives to support faculty advancement.

Outcomes

Women spoke of their professional achievements in creating informal leadership opportunities and attaining formal leadership roles. Despite the absence of deliberate institutional strategies for leadership development, many women used their professional capital to develop informal leadership opportunities in supporting faculty through mentoring and diversity enhancement initiatives. Some women aspired to and often secured formal leadership positions after ELAM, mostly with sponsorship.

Discussion

The findings reflect our interviewees’ career development program experiences, the institutions sponsoring participation,

and the national influences on academic medicine between 1988 and 2010. Our model conceived of women's advancement in academic medicine as occurring within interdependent systems and called for exploration into "the relationships and interactions of the organizational, individual, and societal components."⁷ Personal narratives illustrated the complex relationships among individual, institutional, and sociocultural influences on women's careers in academic medicine (Table 2). The individual and institutional factors interacted to create a sociocultural context as the dominant milieu that influenced women's career development. This interaction influenced women's attendance at career development programs, their ability to capitalize on benefits from the programs(s), and the subsequent impacts and outcomes on their development, formal and informal leadership opportunities and institutional capacity.

Impact of institutional culture

Our model depicted "a congruence of organizational goals with individual roles and responsibilities... gender-equitable policies and practices... valuing women's contributions to the organization."⁷ Sadly, the narratives reveal the opposite. Women noted that their institutional leaders have not involved them in building organizational capacity and in guiding institutional change.

Additionally, our model assumed that institutions act deliberately to "prioritize their increasingly limited resources to support the missions of the organization and to retain highly contributing faculty."⁷ Our data suggest that institutional priorities for supporting faculty are not evident. Our narratives reveal the persistent influence of the sociocultural context on women's academic experience, including their success at attaining impacts and outcomes. This is particularly true for those women who chose to use their professional capital in the pursuit of formal leadership opportunities. Recent literature provides ongoing support for the perspective that women experience academic culture differently than men. This interaction between women faculty and the institutional culture leads to a dissonance that is expressed as a misalignment between personal and institutional values, resulting in gender discrimination, unconscious bias, and inadequate institutional support for advancement.¹²⁻¹⁸ There is evidence that institutions are not incorporating women into executive leadership. As a consequence, women are creating informal leadership opportunities. While these may be personally satisfying, they potentially inhibit women's advancement to formal leadership roles.

The literature supports our conclusion that a consensus has emerged that the advancement of women in academic medicine has stalled,^{19,20} stimulating a helpless fatigue and a saturation of literature that continually bemoans this observation. The academic structure and culture in particular have proven exceptionally resistant to change with its deeply entrenched faculty value system and ingrained sociocultural norms that impede organizational innovations and leadership diversity.²¹⁻²⁴ The additional complexity of academic health centers (compared with other academic settings) exponentially magnifies this challenge and makes leaders reluctant to abandon practices in which they are heavily invested. Leaders in academic medicine also tend to lack knowledge of or to devalue research about organizational change or leader-

ship development.²⁵⁻²⁷ They are also dismissive of the lessons learned from industry experience to advance women in leadership, because while they acknowledge that academic medicine is a business, they perceive that it is a business unlike any other.

Our study has potential limitations of recall bias and cohort effects. Nearly two-thirds of the interviewees had attended more than one of the career development programs. Many women could reflect on the influence of these programs at specific times and on the spectrum of influences of their participation longitudinally. We sorted the interviews into 5-year cohorts to give the study a temporal dimension and to enhance the trustworthiness of our findings.

We acknowledge the absence of external validity inherent in qualitative studies. There is no methodological pretense that the findings are representative of the experience of the entire population of women in academic medicine. We note in the results section that professional characteristics of our interviewees' mirror those of respondents in the survey sample,¹ providing evidence of internal validity. This qualitative study gave us the opportunity to achieve a deeper understanding of the experience of the interview cohort. Our intention in this article is to give voice to the women faculty who attended career development programs, responded to the original survey, and agreed to be interviewed. Contrary to the perception that women participants of career development programs are atypical, this article offers narratives that depict struggles typical of working women in any field or discipline—their need to create balance between social expectations at home and professional expectations at work, and the absence of institutional willingness to develop strategies to ameliorate that struggle.

Conclusion

Intentional strategies within institutions are needed to sustain improvements in diversity and inclusion.²⁸⁻³⁰ Internal efforts made by a few progressive institutions/leaders prove that deliberate development and implementation of policies, practices, and programs to promote women show organizational benefits both in academic medicine and Fortune 500 companies.³¹⁻³⁴

We suggest that there are change agents in academic medicine ready to accelerate progress toward diversity. When capable, highly contributing faculty regardless of phenotype are fully engaged and invested in building the institution, system changes occur.^{3,35-37} Given global changes, social evolution, and a crisis in the healthcare environment, there is an imperative to address what constitutes a good working environment for everyone in academic medical institutions. This may be accomplished by advancing diversity and seizing the opportunities that emerge from change.

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