Women Mentoring Women in Academic Medicine: Pathways to Success

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Gender equality in the academic realm remains an elusive but crucial goal for women in medicine today. Although the number of women in all ranks of academic medicine is growing because of an increase in the number of women entering medicine as a profession, women in academic medicine are still progressing more slowly than their male counterparts in attaining senior academic positions and are paid less for the same work product.[1] Despite the fact that > 50% of medical students today are female,[2] their career development, leadership, and earning potential in academic medicine continues to lag behind their male counterparts.[3,4] Only 10% of women in academic medicine held the rank of full professor in 1985, and that number has only increased by 10% over the past 30 years—reaching 20% in 2015. During this same time period, the percentage of men holding the rank of full professor has remained steadily around 30%.[5] In academic medicine, academic rank is vitally important because it is the primary factor for recruiting and selecting department chairs.[3] Very few medical schools have reached this critical mass of female leaders, and the pool of women in senior positions to draw from remains small.[4] In addition, women earn 7% to 24% less than their male counterparts, when other variables are controlled.[2,3] Given the innate differences between the genders (men seen as strong, women seen as nurturing, etc.), societal gender expectations, and gender biases, a career in academic medicine can be very difficult to navigate as a woman. However, the mentorship of an experienced teacher/guide has been shown to facilitate career development. Mentoring improves

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INTERNATIONAL ANESTHESIOLOGY CLINICS
Volume 56, Number 3, 110–120, DOI:10.1097/AIA.0000000000000192

confidence in the workplace and personal satisfaction by lowering the barriers to academic success by providing the road map to personal achievement for the mentee.[3,6]

■ Why Do Women Struggle More than Men to Advance their Academic Careers?

According to current statistics, female physicians often fall behind their male peers in terms of promotion. Women have slower academic promotion rates and take about 30% longer to be promoted into leadership positions than their male counterparts.[1,7,8] Women also leave academic medicine at a higher rate than do their male colleagues, with an annual attrition rate for woman faculty around 9.1% and for men around 7.7%.[4,6] This is certainly not the result of incompetence among female physicians, rather there are several factors impacting the careers of young women in the medical field.

Academic success is usually defined by promotion, and promotion is typically granted to those with unrestricted availability to work. Thus, female physicians are penalized for being wives, mothers, and caregivers in addition to being doctors. In turn, this penalty contributes to the disparity in academic advancement for women in medicine (and other professional roles as well).[3]

In most instances, female faculty with children and/or live-in elderly parents will retain most of the responsibility as the primary caregiver and also doing the bulk of household chores (cleaning, grocery shopping, cooking, etc).[2] Women physicians are more likely to limit the time and energy spent on their professional careers in order to accommodate child care and other home responsibilities. Balancing call schedules and career development with family demands will impact their ability to acquire new skills. Likewise, it will likely limit collaboration opportunities with peers and their ability to travel and present nationally or internationally at academic meetings. However, these are considered important milestones on the academic pathway to promotion.[1,9]

Men and women have very different practice styles at work. Women in medicine value interpersonal satisfaction, integration, and collaborative work. In contrast, men are more likely to seek out competition, individual achievement, and perceive the achievement of rank as a means of validation.[3] These different work styles may lead to a female faculty's collaborative work being unrecognized and undervalued by leadership because of a lack of visibility.[4] A woman's collective, team-based approach and limited self promotion renders her less conspicuous in the workplace. As women balance the demands of their home life and career in medicine, leaders are likely to undervalue their female faculty's contribution and label them as inefficient, unambitious, or even lazy.

Female faculty also face different work-related stressors, which can involve sexual harassment, verbal and physical abuse, and underestimation of their skills by both colleagues and patients. These stressors alone, or coupled with the limited time female faculty take for self-care and nurturing meaningful relationships, lead to high rates of exhaustion and stress. In fact, 60% more women report burnout than men.[2] The road to burnout for female physicians begins even in the first year of postgraduate training, as shown in a recent study published by Guille et al[10] in *JAMA Internal Medicine*.

A mentor can facilitate a smoother transition to a new work environment, while also providing support and connection. As a result, a mentor can be extremely helpful in starting a new academic career off on a successful trajectory and minimizing the risk of burnout. Having a mentor available to guide time management, improve organizational skills, teach conflict management, and act as a role model is a crucial step for junior female faculty seeking professional and personal success.

■ Types of Mentoring

In Greek mythology, mentor was the trusted teacher, coach, counselor, and protector to Telemachus, Odysseus' son, while Odysseus was away fighting the Trojan War. In medicine today, a mentor is traditionally a senior (both in age and academic advancement) physician, who teaches and advises a less experienced, younger physician in a relationship built on trust and respect. The role of a mentor may be to provide guidance to their mentee by facilitating self-reflection and feedback as they navigate the academic environment. This guidance can take many forms such as skill development and orientation to the clinical and administrative expectations of the workplace. Likewise, it can also include advocating for their mentee as they negotiate career advancement, although this is more in line with sponsorship than mentorship. Mentoring may have a more hands-on role of actively developing infrastructure and workflows. With a mentor fulfilling this role, a mentee can work on and succeed in academic projects. A mentor's established reputation in the medical community can open doors for the mentee, allowing the mentee the opportunity to meet with and be recognized by leaders in their academic field. Career development and research productivity, as measured by resources such as dedicated research time, laboratory space, grant awards, and publications, are shown to be impacted positively by having a mentor.[3,6]

There are 3 main types of mentorship structures. The first is the Multiple-Mentoring Model, which requires a mentee to actively seek and build a mentoring community to provide networking and support. These networks can include mentors within and outside of their medical

specialty and even outside of medicine. This multiple mentoring network may include peers, who can work together in a collaborative way toward common goals. This model is a time-consuming and difficult endeavor to undertake when starting out in an academic career. Oftentimes, a young physician may be overwhelmed with clinical work and attempting to figure out their personal work-life balance. However, it does tap the strengths of women working collaboratively together. Another drawback for this model is the concern that academic collaboration may benefit some more than others in the team dynamic. For instance, those with institutional seniority and connections may unfairly benefit from the work of the junior-most members of the team.[11]

The second model is the Peer-Mentoring Model in which a collective group of physicians of similar rank and usually in the same specialty work together collaboratively to achieve a common goal—progressing their careers and creating academic value to extend the practice of medicine. A distinct disadvantage of this model is the inefficiency, which comes along with the inexperience of a junior collection of faculty who do not have a senior advisor to facilitate and guide their work.[3] This model also advances the more productive peers (both male peers and female peers) at higher rates, which can lead to imbalances and conflict in the team.

The third and most traditional mentoring model is known as the Dyadic Model (the interaction between a pair of individuals). This model usually involves a senior male mentor because of lack of female mentors who are able to fulfill these guidance roles.[6,12] While women may have effectively been mentored in this model, the hierarchical mentoring style may have drawbacks for young female faculty. This traditional model of mentoring prioritizes technical information and teaching academic independence over relationship building. In this male socialization model of mentoring, interpersonal competition and individuality are valued over collaboration.[3] It may be difficult and intimidating for a young woman to enter into this type of mentoring relationship. Likewise, it may not necessarily be a good fit for a young female faculty member who may need more psychological support and guidance early in her career as she attempts to balance professional development with a young family and children.[6] The added expectation for work-life balance and personal support in this mentoring relationship may be threatening to senior male physicians with the heightened awareness of sexual abuse in the work environment. This added layer of complexity in the mentoring relationship, which can easily be misunderstood and misinterpreted by both parties, can have a career-limiting effect on the mentor. This may cause senior male mentors to consider avoiding mentoring young female faculty altogether. This will decrease the size of the mentoring pool and will further limit the female faculty's ability to get effective mentorship.

■ Do Women Need to be Mentored by Other Women?

"Having a mentor can be helpful; having a mentor who is self-reflective, discreet, honest, curious, and generous can be life- and career-changing."[13]

There has been no documented difference in publication rate depending on the gender of the young female faculty member's mentor, but a significantly lower rate of publication if a young faculty member does not have a mentor at all. When junior faculty were queried about having a mentor, the results show that more white male than white female physicians had mentors, and both these groups were mentored more often than minority physicians of any gender.[8]

Most respondents to a survey on female faculty's preferences with regard to mentor similarity valued having a mentor in the same department and institution as the most important singular factor. However, minority faculty, faculty at instructor rank, and faculty without a current mentor ranked the gender of their mentor as an important factor.[14]

Most academic mentors are male individuals because of the lack of senior female mentors available in academia. This can be problematic, as male faculty may not have experienced the same difficulties in the workplace as their young female mentees. In a review of male-dominated academic mentoring, the focus of the mentorship was on academic life without addressing the work-family conflict, which impacts so many women in medicine.[3]

Married, female physicians with children work—on average—11 hours fewer per week than their married male colleagues, as the bulk of child care, elder care, and domestic responsibilities are still borne by women. Over time, this disparity impacts the professional careers of female physicians.[15] The pregnancy/child/elder care penalty is real, and it may not be adequately addressed by a male mentor. However, a senior female physician who is able to successfully balance career and home life and prove that this is a penalty that can be overcome can be an effective and inspiring resource to a female faculty in early and mid-career development.

The availability of female mentors and role models may impact whether academic medical departments can attract and retain young women physicians as more opportunities open up for talent outside of academic medicine. Young women's attrition from academic medicine may be a result of them having increased opportunities outside of academics that better meet their professional and personal goals. This is happening because their ambitions are not being realized in academics, and they are struggling to get promoted while their male counterparts are reaching the senior ranks of academic medicine.[1] However, a strong female role model/mentor, who has succeeded in her field, can reverse this trend and decrease the disparity between the number of women entering medical school and those succeeding to senior ranks in academic medicine.[4]

■ What Attributes Should You Look for in a Good Mentor?

Time and Willingness to Mentor

This relationship takes time, trust, and commitment on both sides to be truly successful and effective.[14] This deep developmental relationship will require a personal investment by your mentor in getting to know you —both professionally and personally. A mentorship is a significant commitment, and this should be taken into account as you approach a potential mentor. Her availability and time commitment to the mentoring relationship will be the foundation for its success (Table 1).

Accomplishments and Willingness to Share Knowledge

The mentor's research and professional status will impact her effectiveness as a mentor, as will the common values and like-minded interests shared between the dyad.[9] A mentor and role model should have experience and expertise in the area in which they are imparting knowledge and advice to their mentee, otherwise this relationship cannot be productive.[13]

The mentoring relationship should focus on career and individual outcomes that are meaningful for you—the mentee. In turn, this relationship may lead to promotions, salary growth, and career satisfaction within the context of your family and work life.

Trust and Focus

A mentor/mentee relationship should be built on trust. This relationship relies on open communication and mutual respect. Your mentor should guide your academic effort, help you optimize efficient time management, and promote a high level of visibility for you. A good mentor will value projects directly impacting your career path rather than dissipating time and energy on others projects for which you may get little or no recognition. This visibility may be uncomfortable at first, as women are socially conditioned to

Table 1. *Attributes of a Good Mentor*

Time and willingness to mentor	Will need to be approachable and available to mentor
Accomplishments and experience to impart	Similar academic interests make initiating the relationship easier
Character	Honesty, integrity, and open mindedness
Compassion	A mentor who cares about your success as much as you do
Confidence in your ability	A mentor who respects you as an individual
Diplomatic and communicative	Open to giving and receiving feedback to improve your professional relationship

stay in the background.[4] However, visibility is crucial for career development. Collaborative work may be beneficial to your early academic growth, as it provides you with the experience of a group and a great deal of networking opportunities. However, when collaboration eclipses your career trajectory, this becomes career-destructive behavior. A mentor can provide you with this insight and guide you away from this behavior. Thus, your mentor can help you develop your independence and steer you away from projects that will not positively impact your career.

Compassion and Fairness

Strong female mentors and role models should facilitate the development of resiliency. A mentor should help you develop the strategic agility to succeed in the academic environment by focusing on your negotiation skills, your evidence-based decision management, and your ability to manage conflict with your colleagues. Your mentor can be a sounding board and critic, allowing you to improve your advocacy for yourself, as you compete for more resources. Likewise, a female mentor who understands the work-family conflict can monitor and guide you, offering productive advice on how to manage and balance personal, family, and work stressors.

Willingness to Communicate Opportunities and Develop Independence

A mentor should expose you to her own professional circle on a local level as well as on the national stage by facilitating introductions and nominations to local and national committees. She should involve you in networking at academic meetings to illustrate the importance of building recognition and relationships with your academic peers. Your mentor should encourage your independence by inviting you to cowrite papers with her, as well as assisting you on projects, papers, and research, as you develop conditional independence and, later on, full academic independence.

A single mentor may not be able to fulfill all these different roles for the mentee; hence, you can and should seek mentorship from multiple mentors, as your career path requires it. And, when you succeed in your career, make sure you reach back and extend the mentoring opportunity to the next young woman in medicine—this is the outcome of a truly successful mentoring relationship.

■ What Makes a Successful Mentee?

The first step to becoming a successful mentee is taking ownership of your own success—your mentor does not owe you a successful career. Likewise, you must understand that a mentor is not your sponsor (although she may become one later). A sponsor is a person who will put

Table 2. *Attributes of a Good Mentee*

Motivation to succeed
Time management skills
Positive attitude
Respect
Willingness to learn
Honesty
Open communication
Self-reflection
Giving and receiving feedback

their own reputation on the line to help you advance your career; this is something you may earn from your mentor over time, but you should not expect it from her (Table 2).

Initiating the process to seek out your mentor is the first and most important step to becoming a successful mentee. In addition, understanding and respecting your mentor's limited time and demanding schedule is an essential aspect of a successful relationship. You should use her time efficiently by being on time for appointments and being prepared with work deadlines in order to ensure an effective mentoring dyad.

Your positive attitude is a great asset to bring into this relationship, as it is much more rewarding for your mentor to guide someone who is positive and driven. In order to optimize the value of this relationship, you should also be open to learn and stretch boundaries outside of your comfort zone.

Another essential asset of the mentor/mentee relationship is open and clear communication about your goals. This communication should also include feedback to your mentor about what is working within your relationship and how you have utilized their advice and direction. Intermittent self-reflection with your mentor will allow you to gain insight into your career progression, and this reflection allows your mentor the opportunity to gain insight into their own role as a mentor.

■ An Approach to Building a Successful Mentoring Program for Female Faculty

- Acknowledge that the mentoring of our young female (and male) faculty is an area in need of greater focus and development.
- Educate the faculty about what a successful academic mentoring relationship should look like, specifying that it will not look the same for every mentor/mentee dyad.
- Assign or allow mentor/mentee pairs to engage in mentoring relationship (this will take time and probably a few iterations before it is the right fit for all persons on faculty).

Mentorship agreement

I, _____ (mentor) and _____ (mentee) do hereby enter into a formal mentoring agreement on this day_____.This agreement will last for a period of one year, at which point it may be renewed.

1. Time Commitment

- The mentor and the mentee will meet individually at least once a month and more often if needed. It is best if a regularly occurring meeting is scheduled, and this meeting can be adjusted as needed, rather than meeting on ad hoc basis. Goals outlined in this mentorship agreement will be discussed during monthly meetings to ensure mentee stays on track for annual goals

2. Professional Development – goals for the next year:

- The mentor will assist mentee to find at least one local or national committee to participate in that aligns with career goal. Please list some target committees:

  _____

- The mentee will attend the following national meeting(s):

  _____

- The mentee will develop the following clinical skill (if applicable):

  _____

3. Academic productivity – [minimum] goals for the next year:

- Abstract submissions _____
- Manuscript submission _____
- Quality improvement project involvement _____
- Regional/local/national presentation _____

4. Burnout Prevention

- Recognizing that burnout is a significant risk for critical care physicians, the mentor and mentee will spend some time each meeting discussing current status and any necessary changes. The mentor will assist in identifying resources (EAP, elevation to division chief, etc.) to address concerns.

4. Conflict resolution

- Conflicts can arise in a mentor-mentee relationship. The mentor and mentee agree to use open communication as a first step to address any such conflicts. As a next step, the mentor and mentee agree to seek the input of the division chief.

Mentee date

Mentor date

Figure 1. *The mentorship contract.*

- Sign mentor/mentee agreement and hold both parties accountable to the agreement (Fig. 1).
- Develop infrastructure to improve mentor development:
  - Define the expectation of the role of mentor:
    - Being interested in their mentee.
    - Being able to motivate, but balance support and challenge.
    - Being able to give both positive and negative feedback.
    - Being an active listener.
  - Improve awareness of culture and gender issues:
    - Set clear personal boundaries.
    - Better understand work-home stressors.
  - Mentor support and recognition:
    - Acknowledge that mentors need mentoring and support in their roles.
    - Recognition and protected time to mentor.
  - Mentor accountability:
    - Mentee actively working toward or meeting milestones on career path.
- Evaluate effectiveness of the mentoring program:
  - Process and objectives of the program clearly laid out.
  - Mentor and mentee meeting regularly.
  - Both parties provide feedback on their impression of the success of the relationship in annual feedback with their Division Chief and Chair of the Department of Anesthesiology.
  - Outcomes of the program include increased academic productivity, expanding network development, and improved work-life balance for the mentee.

■ Conclusions

The success of academic health centers is reliant on their ability to recruit and retain talented physicians, and we cannot afford to leave female talent on the sidelines. We need to acknowledge the unconscious and gender bias that exists in our current institutions. We must leverage the talent of senior female physicians in various departments as mentors and role models for our junior female faculty and residents, helping them overcome these barriers while slowly changing the culture and ambiguity of academic medicine.

Retaining happy, productive, and talented women physicians in the workplace is essential to improving the quality of care in medicine—it has been shown that patients treated by female physicians were likely to have lower mortality rates and fewer hospital readmissions. It would be shortsighted and naive to think that simply instituting a new mentoring model will eliminate barriers for young female faculty; however, effective

mentoring would improve their resilience and give them skills, resources, and guidance to work with as they develop their careers. We need leadership—both male and female—to support women in medicine by developing woman-friendly policies. These may include standardized paid maternal leave options, on-site pump or nursing facilities, or more on-site child care facilities to level the playing field in academic medicine.

Women in leadership and mentorship roles must work to alter unconscious bias in medicine. Over time, this will change our work culture and develop our infrastructure to allow female physicians an equal opportunity for career development and promotion.

The authors declare that they have nothing to disclose.

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