

Addressing the Underrepresentation of Women in Cardiology through Tangible Opportunities for Mentorship and Leadership

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Although more than half of all medical students are female, there is an enormous lack of women within the field of cardiology. The numbers are quite stark: women make up less than a quarter of general cardiology trainees and only 13% of cardiologists in practice.^{1,2} For interventional cardiology, the demographics are even more disproportionate: only 4.5% of all interventional cardiologists in the United States are women, with 5% in Austria and New Zealand and 3% in France.²⁻⁴ This lack of representation is not a byproduct of long working hours or on-call obligations; rather, it is likely due to a dearth of opportunities for advancement.⁵

While the majority of both male and female physicians cite lack of opportunity as their motivation for not pursuing interventional cardiology, data shows that women in cardiology are far less likely to hold positions of power. This phenomenon is ubiquitous in the medical field, with women representing less than half of all faculty and less than a quarter of full professorships. In the field of cardiology, however, it is even more disproportionate. Among all practicing cardiologists in 2014, women only represented 16.5% of physicians with faculty appointments. Of the women who held academic positions, 15.9% were full professors compared to 30.6% of males; female interventional cardiologists only represented 5.6% of faculty compared to 21.4% of their male counterparts.⁷

Moreover, research conducted by the American College of Cardiology reports high rates of discrimination. In fact, the rates have remained largely the same over the last two decades. Almost two-thirds of female cardiologists consistently report experiencing discrimination at work (71% in 1996 vs 65% in 2015), mostly related to gender and childbearing. In comparison, less than a quarter of men reported discrimination (22%), and the discrimination that was reported was largely related to race and/or religion rather than gender.⁸

In a survey of internal medicine trainees regarding career choices and professional development needs, having a positive role model was the most valued professional development need for both men and women. Even so, a significant majority of women perceived the field of cardiology to lack the positive role models that they sought.⁹ The combination of discrimination and the lack of positive role models likely deters many potential candidates from the field

and creates a self-perpetuating cycle of low rates of women who serve as mentors for future trainees.

These systemic issues can be partly addressed through mentorship and the creation of opportunities for advancement, and the strides made in similarly male-dominated fields can serve as paradigms. Organizations such as the Ruth Jackson Orthopaedic Society and the Perry Initiative have established mentoring programs and published guidebooks for female orthopedic residents, summer camps for female medical students, and volunteer programs for female college students interested in orthopedic surgery.^{10,11} Similarly, Women in Neurosurgery provides travel grants for female neurosurgery residents to attend conferences for networking opportunities and sponsors a visiting fellowship for female neurosurgeons abroad.¹² The Association of Women Surgeons has made significant progress towards addressing gender bias and discrimination in the field of general surgery through a pay equity toolkit, access to job postings, career guidance, and a podcast series to highlight prominent women surgeons.¹³

The largest cardiology organizations have made similar progress, albeit on a smaller scale. The American Medical Association provides scholarships that support research to advance the study of women in medicine, and the European Association of Percutaneous Coronary Intervention established the Women Committee in 2013 with the aim to attain gender equality in interventional cardiology through research initiatives, professional development, and mentorship.^{14,15} Additional grant opportunities are becoming available to female interventional cardiology fellows interested in pursuing advanced training, and major cardiology conferences are holding special sessions exclusively for female cardiologists.¹⁶

While these efforts offer examples of the conscientious creation of advancement opportunities for women in cardiology, much more needs to be done at every level of training. There are few formal opportunities geared at providing mentorship for medical students or female internal medicine residents interested in cardiology. These issues continue to persist for women who have already committed to a career in cardiology. For female cardiology fellows, no large-scale mentorship programs exist. Currently, the aforementioned grant opportunity for additional fellowship training only sponsors one candidate annually.

One novel approach often used in the corporate world is sponsorship programs, which differ from mentorship in that sponsors hold upper-level leadership positions and have the power to actively advocate for the advancement of women within a department or organization. This could help address the gender gap while providing executive coaching, expanding professional networks, and supporting career-accelerating experiences for high-performing women. Furthermore, the departments that implement sponsorship programs strengthen the caliber, diversity, and retention of their faculty.

Entry into the field of cardiology should not be limited by concerns regarding the lack of mentorship or discrimination. The professional development of female cardiologists should be addressed at all levels, from individual interactions with young residents in the hospital to national conference presentations led by senior faculty. Ultimately, adding to the diversity of clinicians will reflect the diverse patient populations that cardiologists seek to serve.

Keywords:

women in cardiology, gender gap, mentorship

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