

## VIEWPOINT

## VOICES IN CARDIOLOGY

# Residents' Perspectives on the Mentor-Mentee Relationship



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We recently graduated from medical school and started our careers as doctors. We aspire to specialize in cardiology and become cardiologists one day. Ever since our first day on the cardiology ward as medical students, we were enticed by the diversity, complexity and fulfilment the specialty offers. We witnessed the uniqueness of each patient interaction, the wide array of assessment and treatment options available, and the immediate and significant impact that cardiologists can bring to their patients. We were amazed by the strong evidence base for practices in cardiology, how there is a trial for almost every important question in cardiology, and how rapidly the field is growing. The wide array of career options within cardiology, from imaging to coronary intervention, electrophysiology, heart failure, and congenital heart disease, is also very exciting. In addition, the plethora of research, teaching, and leadership opportunities within cardiology make it an all-encompassing specialty.

However, we are aware that achieving this feat is not going to be easy. The life of a cardiologist is physically and emotionally demanding, working hours can be long and unpredictable, and training is time and labor intensive. We are afraid of not fitting in because of our gender, not having other female coworkers, and being a victim of gender-based selection bias. We worry about not being able to achieve a good work-life balance and plan out our families. We have fears about succeeding in academia and

taking up leadership roles as women in cardiology. We are not alone in feeling this way, multiple national and international surveys have shown that women have similar reservations about pursuing cardiology (1,2). Women residents are more likely to associate cardiology with adverse job conditions, interference with family life, and a lack of diversity (1). The lack of opportunities, female role models, and mentorship have been identified as barriers to women pursuing cardiology (2). This translates to the stark gender gap seen within the specialty: although approximately 50% of medical school students and 42% of internal medicine residents are women, only 25% of general cardiology fellows are women, and women make up <13% of practicing cardiologists (3). In certain cardiology subspecialties, the gender disparity is even greater: women account for only 4.5% of interventional cardiologists and perform <3% of angioplasty procedures (4).

Coupled with these perceived challenges, cardiology is a popular specialty and is consistently one of the specialties with the highest competition ratios. In the UK, the success rate of matching into a cardiology specialty training post is consistently around 20%-25% (5). Residents in the United States have a similar success rate of matching into cardiovascular fellowships (6). An analysis by McNally (7) found that there was a positive correlation between the success rate of a specialty and the proportion of female applicants. This suggests that women are selectively not applying to more competitive specialties. In addition to the barriers already discussed, there may be a social-psychological reason for the gender discrepancy. Studies have shown that women are less likely to promote themselves and have less propensity to negotiate for desired positions and resources (8). It is proposed that this may be caused by negative gender stereotypes, viewing women who engage in self-promotion and negotiation as less likeable.

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**TABLE 1 Goals to Address in a Mentorship Program**

Personal goals	<ul style="list-style-type: none"> <li>• Personal aspirations: family, leave, radiation management</li> <li>• Personal development needs: goal-setting, work-life balance, stress management, overcoming challenges, planning ahead, well-being tools, negotiating skills</li> </ul>
Clinical goals	<ul style="list-style-type: none"> <li>• Identifying developmental needs and career aspirations</li> <li>• Career guidance: applications, interviews, personal statements, recommendations, sub-specialty choices</li> <li>• Clinical opportunities: fellowships, away institution placements, grants, sponsorship, networking</li> </ul>
Nonclinical goals	<ul style="list-style-type: none"> <li>• Teaching, management, and leadership opportunities</li> <li>• Research opportunities, skills, funding, grants, and sponsorship</li> <li>• Supporting attendance and presentations at research conferences and meetings</li> <li>• Guiding networking opportunities</li> </ul>

Competitiveness, aggressiveness, and dominance are often perceived as negative traits in women, which may result in lower motivation to pursue a highly competitive specialty like cardiology, and a perception that women do not “fit in.” Although societal pressures are slow to change, they are certainly not insurmountable.

We believe that having approachable mentors and female role models will help attract more women to pursue a career in cardiology. A survey of internal medicine trainees identified having a positive role model as the most valued professional development need, and a significant number of female trainees perceive the field of cardiology to lack positive role models (1). In a survey of American College of Cardiology (ACC) members, 90% of respondents reported that mentorship was influential in their decision to pursue their current career track, with the stage of influence being as early as medical school and residency (9).

Mentorship has been identified as key to enhancing recruitment of women into cardiology (10), has been linked to future employment opportunities (11), and has been described as a “major strategic priority” encompassing a variety of activities, including advising, teaching, coaching, advocacy, sponsorship, and role modelling, as well as assistance with personal development and achieving work-life balance (9). The survey of ACC members also found that female respondents were more likely to report having an influential female mentor, and sex concordance in mentoring was positively associated with satisfaction in achieving professional goals, highlighting the importance of encouraging female cardiologists to serve as mentors for young trainees. Given that mentors for medical students or residents can

potentially be any senior colleague, anyone from a cardiology fellow to a senior cardiologist who is willing to help promote the career of a more junior physician can serve as a mentor. This represents a huge potential to increase the number of cardiology mentors, which can help shift the demographics and lead to increased diversity and sex balance within the field of cardiology.

For residents, mentors serve as relatable role models, reinforcing the seeing is believing paradigm and helping us feel more empowered. They can guide us about clinical and research opportunities; signpost us to useful resources, local cardiology meetings, and international conferences; support us through the fellowship application process from choosing suitable fellowship programs to writing the personal statement and attending interviews; advise us about research and travel grants; motivate us to fight challenges; and encourage us to stand our ground when required (Table 1). As mentees, we can discuss our goals; our various concerns about work-life balance, radiation exposure, and succeeding in academia; and our strategies to overcome these challenges. Hearing positive stories from our mentors, their struggles, their triumphs, their management strategies, and their tips for success will serve as positive reinforcement and give us confidence about achieving our goals as women in cardiology. In the survey of ACC members on mentorship, characteristics such as willingness to share expertise, setting an example, integrity, devotion of time and energy, and provision of opportunities have been identified as qualities that were most valued in a mentor (9).

Mentors might not have the answers to all of our questions, but they can guide us to the right people or places where we can access support. This can be especially important in subspecialties in which the gender gap is greater (eg, interventional cardiology and electrophysiology), where practice isolation is more likely (4). The growth of virtual networking platforms improving connectivity across the globe offers mentees the opportunity to seek mentors across institutions and in different parts of the world, and groups such as “American College of Cardiology Women in Cardiology” can offer a platform for mentees to reach out to potential mentors in other institutions. This increased global connectivity and unity can be utilized to create a large-scale, formal mentorship program to help medical students, residents, and fellows.

As residents, we want to nurture a mentor-mentee relationship in which we can talk openly about both personal and professional challenges,

seek guidance about clinical as well as research opportunities, and be encouraged by the triumphs of our mentors. The best mentors are empathetic, patient, and approachable. We understand that our mentors will be dedicating their valuable time, so as mentees the responsibility is also on us to ensure we are proactive about seeking advice, making the best use of this valuable relationship, and utilizing opportunities given to us through mentorship. To our mentors, past, present, and future, we thank you for believing in us and taking us under your wing. Your trust, sacrifice, and dedication are our

greatest encouragement, which will impact us for the rest of our careers.

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