Female trailblazers and role models in procedure-based cardiology

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A recent British Junior Cardiologists Association survey demonstrated gender disparity in procedure-based subspecialties within cardiology in the UK.[1] Women form between 4.5% and 7.5% of the interventional cardiology (IC) workforce worldwide[2 3] and even fewer in electrophysiology (EP): only 6% of female UK cardiology trainees choose EP.[1] Interestingly, female trainees were more likely than males to change their preferred subspecialty during early training, away from intervention and EP, in favour of imaging, heart failure and adult congenital heart disease.[4] Common elements identified in feedback from potential female cardiology trainees are the shortage of visible female role models and mentors, and concerns about work-life balance.[4 5]

In this article, four female cardiologists, who are leaders in their chosen procedure-based specialties, discuss their journeys and give advice to *all* trainees who may be considering an interventional subspecialty. They were each interviewed by trainees from their chosen subspecialty.

INTRODUCTION

Dr Rasha Al-Lamee is one of the few female academic interventional cardiologists (IC), and works at Imperial College, London. She completed most of her cardiology training in London, finishing with an interventional fellowship in Milan, Italy, and then a PhD at Imperial College. Rasha combines being a mother, with a fulltime interventional cardiology practice, in addition to a fulfilling academic career.

Dr Shazia Hussain is an IC at Glenfield Hospital in Leicester. In addition to cardiology training at Papworth Hospital, she completed a PhD from King's College London and was awarded the competitive British Cardiovascular Intervention Society Interventional Fellowship in Toronto.

Dr Margaret McEntegart is an IC at the Golden Jubilee National Hospital in Glasgow and Honorary Associate Professor of Cardiology at the University of Glasgow. She completed much of her training in Scotland, finishing with an Interventional Fellowship at Columbia University Medical Centre, New York. Margaret is a globally recognised expert in complex percutaneous coronary intervention (PCI) and a pioneering cardiologist in the management of chronic total occlusions, a field with few women.

Dr Ashley Nisbet is a consultant in electrophysiology (EP) at the Bristol Heart Institute. She is one of a handful of female EP consultants in the UK. After completing training and obtaining her Certificate of Completion of Training, Ashley completed a 2-year fellowship in Melbourne, Australia and then returned to Bristol Heart Institute for her consultant post. Dr Nisbet is now Training Programme Director for Cardiology for the Severn Deanery.

WHY DID THESE DOCTORS CHOOSE CARDIOLOGY?

Rasha Al-Lamee decided on a career in cardiology despite hearing that it was not a great choice for women! She enjoys the mix of surgery and medicine, in addition to the rich evidence-base and continuing developments.

Shazia Hussain had initially considered a career in general practice, as she had rarely seen women combine specialist training with young children and thought that her options were limited. She was drawn to cardiology after passing MRCP (Membership of the Royal College of Physicians exams), when she realised that cardiology is the best of acute medicine, with rewarding procedural work while being intellectually stimulating.

For Margaret McEntegart, the draw of cardiology was the prospect of the combination of practical skills, a constantly evolving evidence-based practice, and a dynamic research field.

Ashley Nisbet felt that cardiology combined intellectual problem-solving with an ability to cure the patient. She had initially considered a career in surgery, but then found the mix of practical procedures and interesting physiology attracted her to cardiology.

TRAINING JOURNEYS

The initial training journeys through medical school and general medical training were largely similar. Interestingly, all have PhDs and have completed interventional fellowships abroad, and many have combined this with young family, while training.

All have mentioned growing support networks and robust childcare as essential to focused and stress-free training. Many have found that the balance between training needs and the needs of family can be difficult to achieve, and often seems to be unattainable. However, a healthy acceptance of 'imperfection', a regular review of goals in all areas and looking after your own well-being are all important in ensuring that you continue to thrive in your chosen work and life choices.

WHAT CHALLENGES HAVE THEY FACED?

The ORBITA (Objective Randomised Blinded Investigation With Optimal Medical Therapy of Angioplasty in Stable Angina) trial[6] was a pioneering randomised controlled trial comparing placebo PCI with actual PCI. Dr Al-Lamee led the trial and presented the results of this novel trial which formed her PhD, at the Transcatheter Cardiovascular Therapies meeting, resulting in much comment and challenge in the main arena and the wider community. She faced the challenges of defending the methods and hypothesis not just to a PhD panel, but cardiologists from around the world. The fact that placebo-controlled trials of all therapies, both pharmaceutical and interventional are now becoming increasingly accepted and expected, is in part down to trailblazer Dr Al-Lamee and her coauthors.

At every stage of her training, Dr Hussain was told it was impossible to combine training in intervention with raising her young children. When repeated throughout training, this can be soul-destroying and lead to much guilt and self-doubt. Despite this, she managed to balance the demands of working as an

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IC, completing her PhD and an international fellowship, with single-handedly raising three children. Traditional 8am-6pm day-care for children does not take into account lists over-running, night and weekend shifts, therefore she needed dependable childcare arrangements, with an emergency plan 'B' or even plan 'C': this was the biggest stress of her training. Childcare can frequently be challenging, but even more so if located far from family without a local support network. However, Shazia managed her arrangements by combining good organisation, family support and intermittent periods of less than full-time (LTFT) working. With improving options for LTFT working available throughout training, some of the barriers to women in cardiology are falling.

In clinical life, Dr McEntagert's greatest challenge is reconciling adverse outcomes for patients undergoing high-risk complex interventional procedures. Thankfully, this happens rarely as rigorous preparation and procedure-planning along with accrued experience, and consideration of the patient at every stage, results in a low complication, and high success rate. Additionally, as a consultant, Margaret has had to learn how to deal with workplace interactions: learning to listen and reflect, have been key to a supportive and happy work environment. Learning new life skills is essential as a consultant: learning never ends.

Dr Nisbet comes from a small town in the West of Scotland. At most, a couple of students per year went on to higher education from the comprehensive school where she studied, which makes her achievements all the more remarkable. There have been further challenges during training, for instance, when Ashley was expecting her daughter. Ashley went into premature labour the night before her PhD viva and eventually defended her PhD when her daughter was just 9 weeks old. At the time a huge challenge, but she now feels this was one of her greatest achievements.

ROLE MODELS AND MENTORS

All four of the cardiologists in this article described strong support and guidance from both female and male mentors during their training. A mentor or role model is not essential but is often a great asset to a trainee. A mentor can share their own experience, and provide advice, motivation, emotional support and be a role model. If you chose a mentor, it is important to consider someone with an understanding of your goals and difficulties, and an ability to nurture your interest and to help you to reach your potential.

Box 1 Key messages

- Self-belief and determination are key attributes to *any* trainee wishing to be a cardiologist.
- Do not let outdated ideas and opinions sway you from your chosen path.
- Follow what you are interested in and not what you *think* you should follow because of your gender.
- Do *not* delay having a family: there is never a perfect time. Stay family-focussed and organised throughout.
- Flexible training is possible, even in procedure-based specialties.
- Identify a role model and mentor (male or female) who understands your goals and difficulties, and someone who will nurture your interest and help you reach your potential.
- The training journey is demanding, but as a consultant there are greater opportunities for flexibility.
- Planning and organisation in all aspects of work and home life is key.

FINAL THOUGHTS

It is possible to combine a procedure-based subspecialty in cardiology, research, international fellowships and family life. The featured cardiologists have entered arenas where women are frequently under-represented. Concerns about the length of training and need for research are commonly voiced but have made very little impact on their individual career choices. The rewards from a career in cardiology are great. With improved options for LTFT training and mentoring, the barriers to women are few. The hope is that these stories will inspire trainees who were previously discouraged from contemplating careers in procedure-based cardiology to consider EP and intervention.

Dr McEntagert states that if you wish for a career in cardiology, persevere, and it will happen! Similar to comments from our US colleagues—"If you love it, you will make it!"[7]

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Contributors SB devised the paper and questionnaire and, chose the subjects. NB, PH, HH and IDK each interviewed one of the four featured cardiologists. Dr Al-Lamee, Dr Hussain, Dr McEntagert and Dr Nisbet provided their time for interview and comments on the final draft. SB wrote the final paper, incorporating comments from all the authors and collaborators.

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