



The Role Models who Sustain Medical Women's Career Engagement

Who Do They Need to Be, and What Do They Need to Do?

May 2014

Kim Peters, Michelle Ryan, Eleanor Toppin, Rosanna Leigh, Alex Lucas



Foreword

I am delighted to introduce this report on role models and medical women. It was written by a group of Psychologists from Exeter who have partnered with the Medical Women's Federation (MWF) over the years to develop a better understanding of the experiences of medical women. This report presents the results of a recent collaborative multi-method project that aimed to shed light on the importance of role models for medical women at all stages of their careers and is a pioneering piece of research. Our members participated in interviews and surveys, and we thank them for providing the material for the research

Several recent reports on Women in Medicine have recommended role models as a solution to the challenges these women may face in their careers. However, almost without exception, there have been few details about when (and why) role models work and what effective role modelling looks like. This research was designed to address this gap. The report discussed evidence that role models can perform multiple functions, from inspiring women to supporting and encouraging them to achieve

their potential as doctors. Interestingly, the findings suggest that both men and women can make effective role models, although in some specific domains such as managing family and work women were seen as more useful. The research further suggests that being an effective role model is not just about being inspirational; it is about taking the time to encourage and support those around us.

MWF is passionate about helping women to achieve a successful combination of professional and family life, if that is their wish, and this research strengthens our conviction that most women benefit enormously from role models.



Fiona Cornish
President
Medical Women's Federation
May 2014

Executive Summary

Although women make up just over half of all medical professionals in the United Kingdom, at senior levels they are significantly under-represented. Previous work by the University of Exeter has shown that this under-representation is partly due to the masculine stereotypes that are associated with successful medics. Women tend to feel that they lack the masculine characteristics that they associate with these successful medics, and this perceived lack of fit erodes their ambition to pursue these senior positions. The present report details the results of a research project that investigated whether role models are able to improve women's engagement in their medical career by challenging the belief that only individuals who match the stereotype can get ahead, increasing their perception that they fit in with successful medics, and their ambition to reach the top of their career path. In the process, this project aimed to improve our understanding of the characteristics and behaviours of effective role models.

In order to achieve these aims, female medics across a range of ages and career stages were asked to participate in an interview or to complete a survey that assessed their occupational experiences and role model perceptions. This research supported the following conclusions:

- Role models work. Women who report having role models in their medical career are more likely to report that there are many different pathways to occupational success, that they fit in with senior medics and to express high levels of career ambition.
- Effective role models are those who boost women's confidence and provide support. While inspiration was an important criterion in the selection of role models, inspiring role models did not appear to increase women's career engagement.

- Quality matters more than quantity. One role model can be enough, if this individual provides the support and encouragement that female medics need.
- Men and women can be equally effective as role models and the majority of respondents had role models of both genders. In contrast to this general pattern, female role models were perceived as being more useful in family or work life balance domains.
- The role models who were most effective were close role models: individuals with whom medical women had an ongoing and close relationship and who could consequently provide individualised career support and encouragement.
- It is important to realise the practical implications of this "hidden" but vitally important work that women doctors perform for the medical workforce of the future as part of their job role.

This research shows that role models are an effective way of boosting women's career engagement. However, to be effective a role model needs to do more than symbolise success; she needs to provide the support and encouragement that sets those below her on the same path.

Introduction

Although the last five decades have seen a transformation in the involvement of women in the world of work, this transformation is most evident in lower status occupations and lower status positions within occupations. For instance, within medicine, women now make up more than half of medical students, but are under-represented in high status specialties (like surgery) and high status positions (including leadership and administrative positions). This under-representation is undesirable, because it means that many women with the potential to work in prestigious, rewarding and high-earning positions are not doing so. Furthermore, the dearth of medical women in such positions means that the intellectual and creative resources of many women are not being fully employed.

What's holding women back?

Previous research has shown that many occupations are associated with masculine stereotypes. In particular, when asked, both men and women say that stereotypically masculine attributes (e.g., determination, aggressiveness, competitiveness, emotional distance) are required to succeed and get ahead in these occupations (1). These findings apply in medicine as they do in other settings. Research by University of Exeter psychologists (2, 3) has further shown that women tend to perceive that they do not possess these stereotypically masculine attributes and that this perception erodes their expectations that they will fit in with successful members of these occupations and that they are likely to succeed in this occupation. Over time, these perceptions have been shown to reduce women's ambition to pursue these occupations (or senior levels within them). All else being equal, these psychological consequences are likely to reduce the number of women who reach these positions. Consequently, efforts to increase the representation of women in higher status medical specialties and higher status positions within medicine need to address these masculine stereotypes of what it takes to succeed.

Can role models help?

One strategy that has been suggested for changing the masculine stereotypes about what it takes to succeed is through the provision of role models in the form of women who have succeeded in their medical careers (4, 5). Role models, from this perspective, are individuals, who have achieved some level of career success, and who are therefore examples of what success looks like — this can be in terms of personal attributes and life choices as well as professional attributes (6, 7, 8). At a theoretical level, they can be distinguished from mentors through the one-sided nature of this relationship: role modelling happens in the mind of an observer, who selects another person as a model for their own future endeavours. Mentorship, in contrast, explicitly involves a two-way relationship between a more senior and a more junior colleague—a relationship that evolves and develops over time and can be terminated by either party (9). It is important to note that while these are theoretically distinct concepts, they may overlap. That is, it is quite possible for a female medic to see her mentor as a role model, although not all mentors will be role models, nor role models mentors.

The assumption underlying the suggestion that role models will counter harmful masculine stereotypes is that female medics who can see that other women have succeeded in their medical career should have heightened expectations that they too can make it, which should stoke their ambition to get ahead. Many organisations have acted on this suggestion by seeking to increase the visibility of successful women through a range of means, including the publication of biographical profiles, the provision of speaking opportunities and the celebration of women's achievements.

However, while role models are promoted as a panacea for underrepresented groups (10), there is only a limited amount of evidence that role models (and role model interventions of the type outlined

above) make a material difference to women's career engagement (6, 8, 11). In other words, while the literature currently provides us with some basis for concluding that female medics may indeed benefit from role models there is little evidence that standard role model interventions (i.e., those that increase the visibility of successful women) are all that is needed to spur other women to pursue traditionally male-dominated occupations or positions. In this report, we attempt to shed some light on these gaps in our understanding.

This report summarises the results of a multi-method research project (combining qualitative and quantitative methods) that aimed to answer three key (1) whether role models have beneficial effects on women's occupational engagement, (2) if so, who these role models are, and (3) what these role models do.

In the first, qualitative, component of this research, we asked medical women to discuss the impact of role models in their professional lives, the identities of the individuals that they selected as role models and the behaviours of these effective role models. In the second, quantitative, component of this research we tested whether these findings could be replicated across a larger sample of medical women using a more rigorous survey approach that minimised the possibility of experimenter demand and response bias. Each of these research components is presented in turn in the pages that follow.

Talking about Role Models

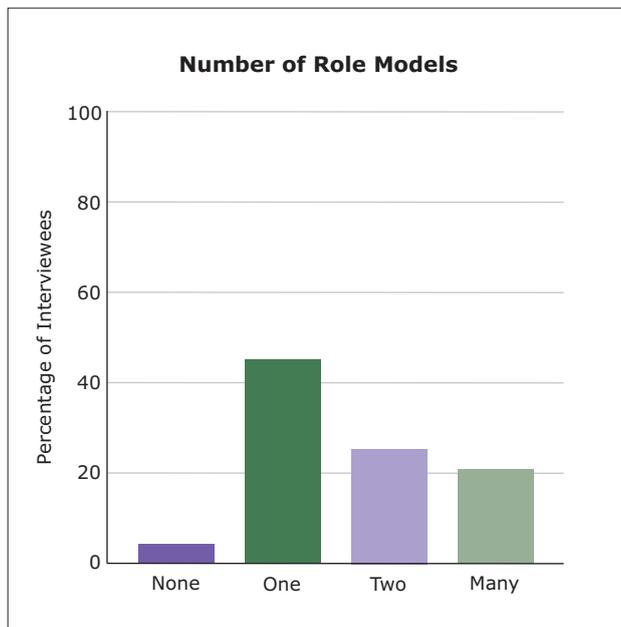
Methodology

In order to gain an initial understanding of the importance of role models for female medical careers as well as the characteristics of these role models, we conducted semi-structured interviews with 24 female attendees at the 2012 Autumn Medical Women's Federation (MWF) Meeting in London. All interviewees were asked to shed light on the importance of role models in their own careers, and where possible to describe what it was that led them to choose these individuals as role models. They were also asked to reflect on the importance of role model gender in their own choices, and in the choices that other people may make. These interviews were transcribed and coded for dominant themes that touched on the functions of role models and their characteristics.

Results

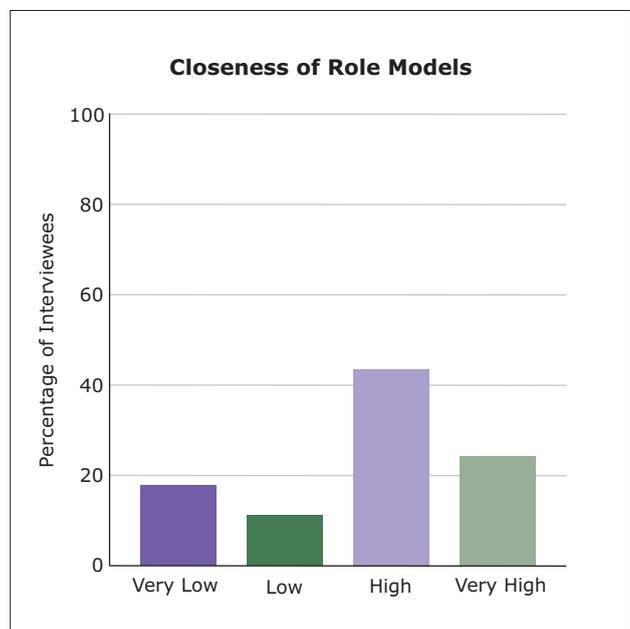
The respondents represented a range of ages and career stages: 10 of the respondents were medical students, 6 were specialty trainees and the remaining 8 were consultants.

The interviews revealed a number of differences in the way in which these women related to role models, but in general, there was remarkable consistency. First, of all, as can be seen in the figure below, all but one of the women mentioned one (or more) role models in their own career.



Although there was some variation in the number of role models that the women mentioned, the modal number was one. This suggests that role models are somewhat infrequent, and that of the many people we come across in our working and personal lives, very few are considered to play this potentially important role in our career path.

When we looked at who it was that women were mentioning as role models (their relationship and occupational role), it was clear that most role models were individuals with whom the women had an important — and somewhat intimate — relationship. As the figure below demonstrates, a relatively small percentage of the respondents specified role models who they did not know that well (or at all).



The closeness of nominated role models is illustrated by the following quotes.

"Although my mum is not a medic, I think she is definitely quite an important role model because she ... worked [her way] up and has done things I think people wouldn't have expected her to do earlier in her life."

Respondent A1: 4th year medical student.

"At the medical school, one of the consultant surgeons that I worked [for], I think I would say was a role model. He was a nice bloke for a start, and you know enthusiastic and he did a lot of teaching actually and you felt he was actually interested in you"

Respondent B2: Consultant Rheumatologist

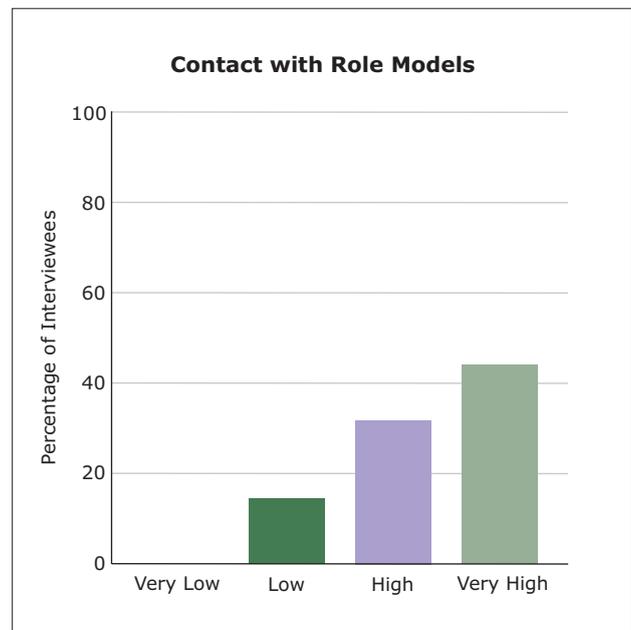
"Initially my family GP inspired me, he was our GP for my whole life, really influential."

Respondent C4: GP trainee

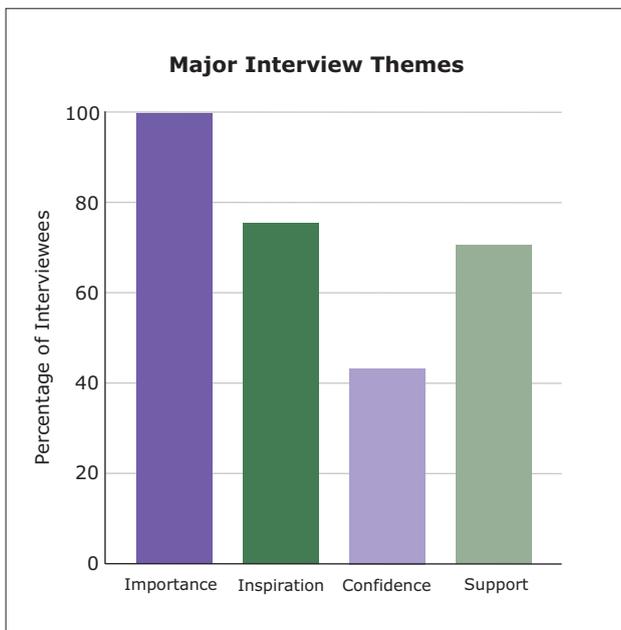
"My father is a great role model in that he never said that because I was a girl I couldn't do what I wanted to do. There was never any distinction between the way he treated me and the way he treated my sister and I and the way he treated my brothers – we always felt that we could do whatever we wanted to do. And I have a cousin who is a gastroenterologist here who is a professor of medicine in fact, and he's probably one of my strongest influences although we're not in the same speciality."

Respondent C10: Consultant physician

Given the tendency for the women to nominate as role models those individuals that they knew well, it is not surprising to note that in most cases, the women mentioned individuals with whom they had relatively high levels of contact on a day-to-day basis (see below). This could be either because they worked together or because of a strong personal (often familial) relationship that meant that they would see this person regularly.



In examining the themes that emerged when the interviewees were asked to discuss the importance of role models, we identified four that emerged with some consistency. These were an overall discussion of the importance of role models, the inspirational value of role models, the capacity for role models to affect medical women's career confidence and the capacity for role models to provide career support. As can be seen in the figure below, although all of these themes were frequent there was some variation in this. In particular, while all participants explicitly discussed the importance of role models, somewhat fewer mentioned the inspirational and support functions of role models and less than half mentioned the impact of role models for career confidence.



Importantly, as the figure below shows, people were generally favourable in their discussions of the importance and functions of role models.



In particular, when interviewees' favourability when discussing each theme was coded using a 7-point scale (1=strongly disagree, 7=strongly agree), favourability ratings were generally well above the mid-point (that is, exceeding values of 5). In other words, on average, interviewees' indicated that role models were important, and did provide them with inspiration, confidence and support in their careers (although there were exceptions to this perspective). Indicative quotes are provided below.

The Importance of Role Models

"Role models are important for anyone doing medicine, especially for young medical students. Yeah, you need someone to guide you."

Respondent F7: medical student.

"I think role models are very important because especially when you're young, you want to see, so in 20 years time what am I going to be like, how has that person been through 20 years, what their experience has been."

Respondent E1: consultant in obstetrics and gynaecology

"No I don't believe in role models, I don't believe we have to look to other people to make a difference. I think that we need to set up our own goals and just keep fighting."

Respondent B8: consultant in anaesthesia and intensive care

"I think it's definitely important to have someone to view as a model, and you can talk about your training and what paths to take."

Respondent A3: 5th year medical student

The Inspirational Function of Role Models

"A few consultants were very inspiring on placement, not necessarily in areas your interested in. [It] changes your perception of that as an option for a career. Having a really positive role model in that area really makes you consider it in the future."

Respondent B2: final year medical student.

"Even if you're not particularly ambitious you need an inspiration as to keep your drive going just to do a good job."

Respondent D1: medical legal advisor

"One of my other role models is a guy, a male GP, who lives near where I am and on a placement with him he was really inspirational."

Respondent E1: 4th year medical student

The Confidence Function of Role Models

"She's a lady who has achieved what I think she wants to achieve, she makes me think that anything is possible."

Respondent G1: medical school teacher

"I have a cousin who is a gastroenterologist ... and he's probably one of my strongest influences although we're not in the same speciality. I mean, him being a... a black consultant kind of made me think that this isn't impossible."

Respondent C10: consultant physician

"She was my consultant and my role model and she had more confidence in me than I had in myself at that time."

Respondent E1: consultant in obstetrics and gynaecology

The Support Function of Role Models

"He was just really approachable and really supportive and just helped me out a lot. He had a lot of time for career advice."

Respondent G2: trainee

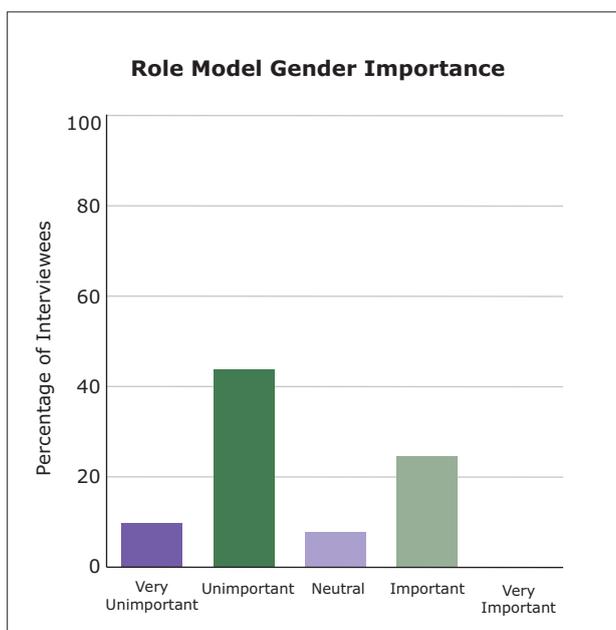
"I was shadowing her and she was very supportive of me and she basically allowed me to do pretty much any procedure and she was very ... encouraging."

Respondent D9: 3rd year medical student

"Since I have moved over to doing the medical legal work in the organisation there are a couple of senior people who have been very good in supporting and kind of encouraging."

Respondent D1: medical legal advisor

All respondents were asked about their perceptions that gender mattered in their own selection of role models, or in the selections that other women may make. We coded interviewees' responses in terms of their assessment that role model gender is important. As can be seen in the figure below, there was a range of perspectives across the interviewees, but on average they saw gender as somewhat unimportant.



The following quotes illustrate this range of perspectives.

"I wouldn't say that I particularly look at female doctors and I think I want to be like you; I look at doctors who I think are good at their job and I think I want to be like them whether that is female or male right now doesn't make much difference to me."

Respondent AI: 4th year medical student

"I think there are some men who I think they are amazing. Some people fear them because they are sort of mean and can be quite harsh to you... I mean sometimes I see these guys and how they interact with their patients and think ok you may be a man, but you're actually very good. So I don't think gender sort of colours it as well for you, it just kind of depends on how good they are and those are the characteristics I would want to have in my teaching career as a doctor."

Respondent B6: 4th year medical student

"[Women] are more approachable; most of the males seem quite high paced, and rather busy, you can't really interact with them as well. But the females are much more approachable, and encourage you to participate, which I think is a key factor."

Respondent D5: final year medical student

Although respondents differed in their perception that role model gender mattered, there was general agreement that female role models may be important when it came to issues related to parenthood and work-life balance or in specialties (like surgery) that are male dominated. As the last quote below shows, though, men can also boost women's confidence that they can make it.

"I think it's quite nice to get a female perspective because many things that women face, so for example having children, fitting children and family into your career."

Respondent D5: final year medical student

"And then there have been influences in terms of female consultants that I've worked with over the years who have managed to do lots and lots of things while having lots and lots of challenges and that's kind of, again, made me think that, you know when sometimes when one doubts oneself that actually, you're not the only person who's ever been in this position."

Respondent C10: consultant physician

"I think it's always easier to have a closer supervisor-student role with somebody of the same gender. I just think that sometimes women want certain things out of a role model which they can only get from other women. So for example, how to achieve despite being a woman, how to balance work life, how to approach different leadership styles and team working styles, because I think, and communication styles as well, I think also differ."

Respondent G1: medical school teacher

"It's important for [women wanting to go into surgery] to have a [female []] role model and to see that it can be done and have someone supportive as an example that it can be done."

Respondent D9: 3rd year medical student

"He is the reason why I wanted to do orthopaedic surgery... he's also a nice person and he tells us that being a woman doesn't matter in surgery [which is very helpful] ... because you know [people say that being] female in orthopaedic surgery is even more difficult."

Respondent F7: medical student

The final theme that we coded in the interviews was women's experiences that their role models had changed over their career. As can be seen on the page overleaf, most of the women indicated that their role models either had changed over their career or that they may change in the future.

"I think you probably could have one role model who sees you through the whole way but I think things change and your career path changes, and I am sure once you have kids ... you might then want to start modelling your career on someone who does have children."

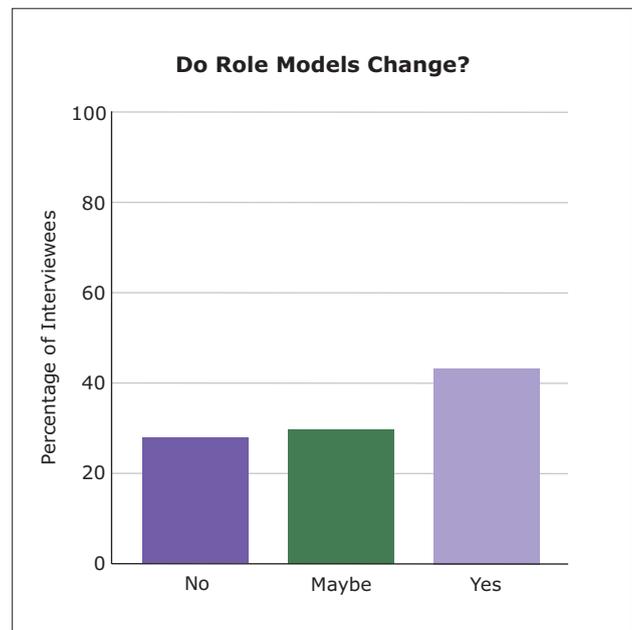
Respondent E7: obstetrics and gynaecology trainee

"Firstly you look to more medical students, and now more in the training post, in an area that I'm interested in."

Respondent D5: final year medical student

"My clinical supervisor was a male and he's been an amazing role model to me and been really supportive ... now that's changed a little bit. I mean he's still there when he needs me but he himself has kind of said that I think I've taken you as far as we can go and now you want to do something a bit different to what I do."

Respondent E7: obstetrics and gynaecology trainee



Discussion

Together these interviews lean support to the claim that role models play an important role in medical women's careers. Specifically, the vast majority of the interviewees indicated that role models had indeed been (and remain) important for them. Interestingly, most women mentioned only one or two individuals who were role models in their careers. This suggests both that female medics are selective in whom they chose as a role model and that a single effective role model may be able to meet these medics' needs. While in our discussion of the results, we have emphasized this dominant perspective, it is important to note divergent opinions. In particular, two of the respondents made strong cases that to succeed it is important to look within oneself, rather than outside the self, for inspiration and drive. It is also the case that several of the women expressed disappointment that they had not been able to find role models in their careers so far. As one specialist trainee (B4) said:

"I can't find anyone to aspire to; they all seem to be too focused on work. Women I see at work are all divorced, with children who have grown up... I would like a female one... I think they can support me; they have similar lifestyles like having a child or getting married."

When we analysed what it was that women were looking for in their role models, we found evidence for three main functions: inspiration, confidence and support. In particular, respondents tended to say that their role models had (1) inspired them to choose a particular pathway and to be the best doctor that they could be, (2) increased their confidence that they could achieve their career goals and (3) provided practical support in terms of career advice. It is interesting to note that this latter support function is conceptually associated with traditional conceptions of mentoring relationships rather than role modelling. This suggests that one thing medical women are looking for in role models is someone who can provide a mentoring function, and it aligns with our observation that most of the role models that the respondents mentioned were individuals with whom they had some degree of intimacy and frequent contact. As one of our respondents (G1) said:

"For me a role model is about somebody who inspires you, but also supports you. So it's kind of a two-way street I suppose."

Together this suggests that effective role model provision requires more than just rolling out successful female medics at functions and events; it is important that people have the possibility of developing ongoing and supportive relationships with these individuals. Our analysis also suggests that the role models that individuals look for over their careers are likely to change as female medics look for others who have had similar experiences and can provide them with a path ahead. This suggests that boosting role modelling provision requires exposing female medics to a range of individuals who have followed different career paths and made different life choices, and different individuals are likely to find different role models inspiring, and to find different role models inspiring at different stages of their careers. Finally, it was striking to note that many of the women that we interviewed reported the importance of male role models in their careers, and explicitly stated that the gender of their role model had not been important for them. This suggests that men can be very effective role models for women when these men are encouraging of women's participation in medicine. Nonetheless, it was clear that the respondents felt that female role models had a unique role to play in issues related to child rearing and work life balance.

While these findings are very interesting, they are limited by potential experimenter demand characteristics, which mean that interviewees may have expressed perspectives that they felt the interviewers wished to hear. To address this concern, we conducted a survey study to ascertain the generalisability of these findings. We will discuss the methodology and results of this study in the next section. As these findings will demonstrate, there was remarkable commonality across these different samples of women and different research methodologies. In particular, the quantitative findings provide strong verification for our interviewees' claims that role models matter, and that the most effective role models are those who step beyond a one-way relationship and are willing to provide personal support and encouragement to female medics.

Measuring Role Modelling

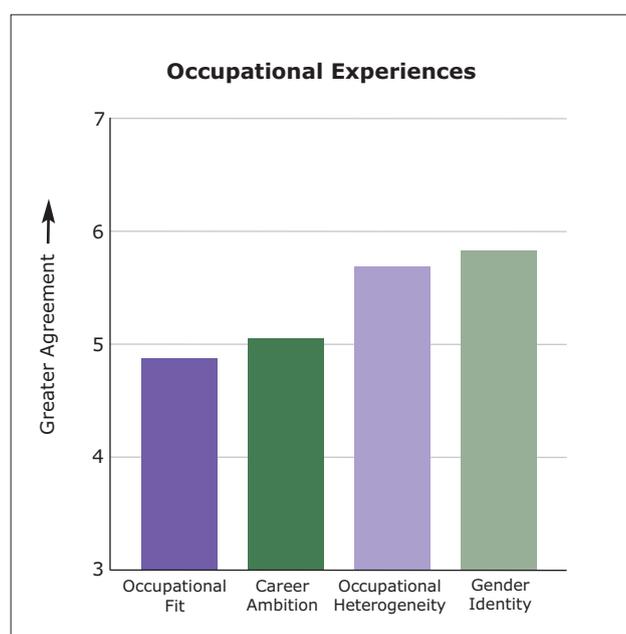
Methodology

In order to ascertain whether the findings that emerged from the interviews hold using quantitative survey methodologies that are less prone to experimenter demand characteristics, we circulated a short questionnaire to 88 members of the Medical Women’s Federation in late 2012. These respondents represented a wide range of ages (from 21 to 88 years of age) and career stages (from medical student to consultant). On average, the respondents were 45 years old and of intermediate seniority. The women were first asked to provide information about their occupational experiences. This included indicating whether they (1) felt that they fitted in with senior members of their occupation (i.e., occupational fit), (2) were ambitious in their career (i.e., career ambition), (3) believed that many different kinds of people are able to succeed in their career (i.e., occupational heterogeneity), (4) felt that their gender was an important part of who they are (i.e., gender identity). The women were also asked to provide information related to role modelling. This included responding to a series of questions that assessed whether they felt that they had sufficient role models in their career (i.e., role model availability). After this, the women were asked to list up to 8 important role models in their career, to indicate the gender of each role model and to rate the extent to which this role model inspired them, gave them confidence and provided them with support. Participants responded to these items on 7-point scales (1= disagree, 7= agree).

Results

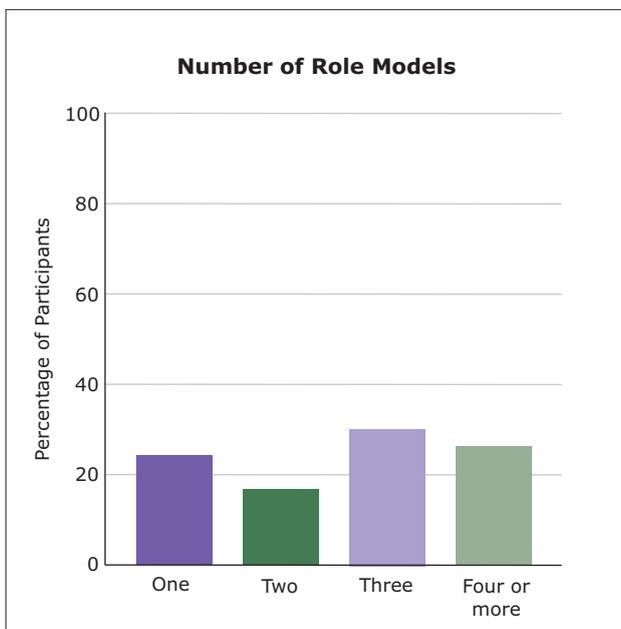
Overall, the women who responded to the questionnaire were highly engaged in their occupations. In particular, as can be seen on the figure on the preceding page, respondents expressed moderately high levels of occupational fit and career ambition (both ratings were above the scale mid-point of 4). Respondents also believed that many different kinds of people were able to succeed in their career — in other words, that there were high levels of occupational heterogeneity. Finally, respondents reported high levels of female gender identification, which is not surprising for a sample that was sourced from a female-centric organization, the Medical Women’s Federation. In sum, on the basis of these responses, these respondents appear to be representative of the population of Medical Women’s Federation members — a group of women who are highly engaged in both their careers and women’s issues.

In terms of respondents’ perceptions that they have sufficient role models in their careers, the figure below demonstrates that most women expressed high levels of role model availability in their careers. It is important to note that there was some variation in this and that a sizeable minority reported low or very low levels of role model availability. Although the findings were somewhat weak, there is evidence that more senior women were more likely to report high levels of role model availability — or, to put it differently, that junior women were over-represented among those respondents who expressed a lack of role model availability.

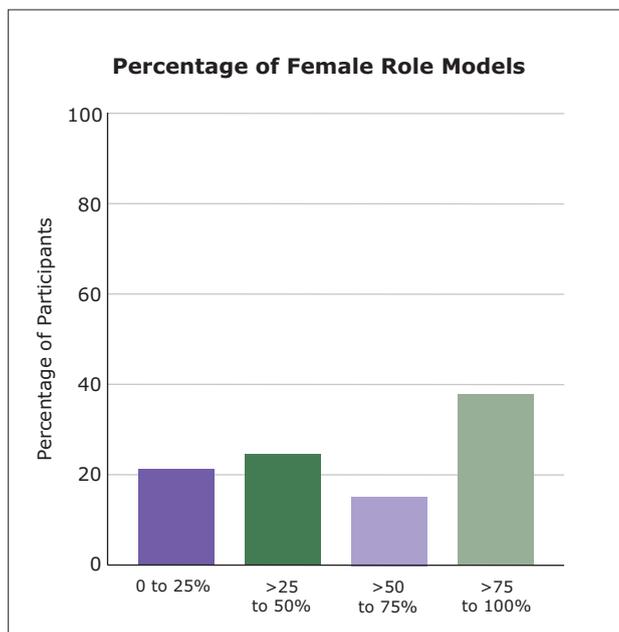




In line with the interview data, when we looked at the number of role models that respondents listed on the questionnaire, there was evidence that the number was rather low. In particular, over three-quarters of the sample listed three or fewer role models. In line with the finding above, there was evidence that more senior respondents listed a greater number of role models.



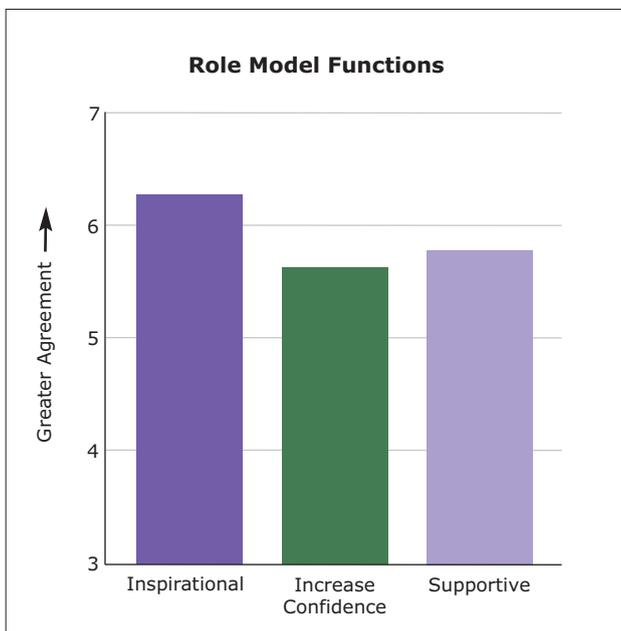
In order to see whether participants tended to prefer role models of either gender, we examined the percentage of the listed role models who were women.



As can be seen from the figure on the preceding page, the majority of participants had role models who were predominantly women. There were, however, sizeable minorities of respondents whose role models were mainly men. This kind of variation maps onto our observation from the interviews that many female medics are not terribly concerned about the gender of their role model, although some were (especially in the domains of work life balance and child rearing). And indeed, when we looked at the association between respondents' gender identification and the proportion of female role models, we found a positive association. This suggests that women who consider their gender important were more likely to nominate female role models but that those who did not consider their gender important were more likely to nominate men.

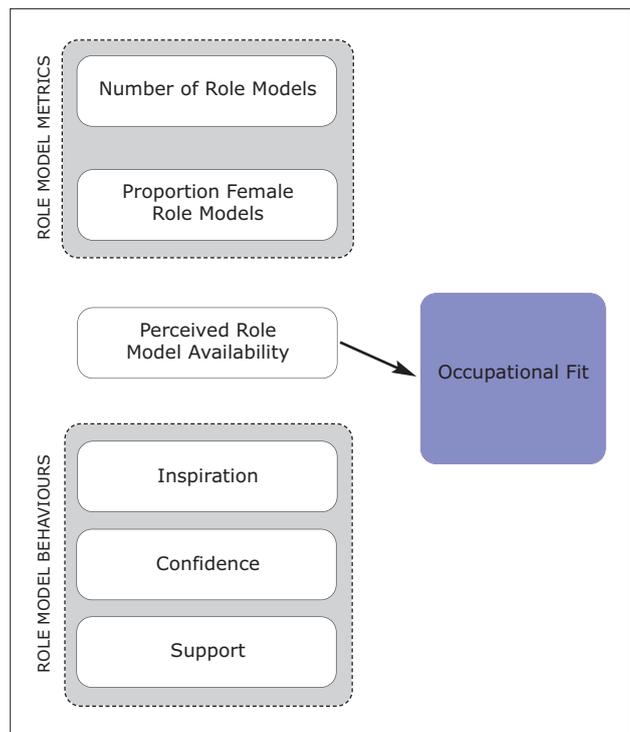
Interestingly, there was evidence of a negative relationship between the number of role models that respondents listed and the percentage of female role models. In other words, the more role models were listed, the more likely that they were to be men. It is possible that this reflects the numerical dominance of men in senior positions in medicine, which makes it unlikely that female medics can identify many women above them who could provide role modelling.

Next, we examined respondents' perceptions that their role models fulfilled the three role modelling functions that emerged from the interviews: that is, inspiration, increase in confidence and support. As can be seen from the figure below, respondents indicated that their role models did fulfil all of these functions, although the inspiration function appeared to be fulfilled to the greatest extent.

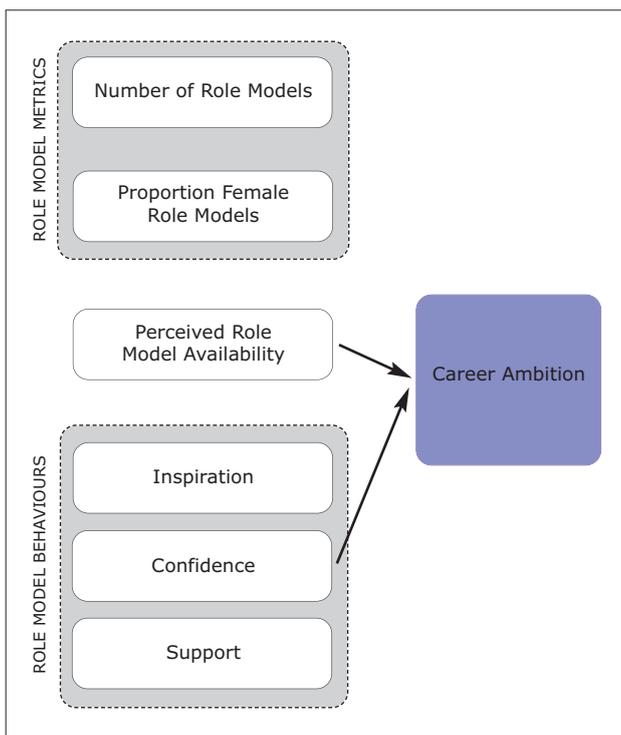


While the above results provide us with further insight into who it is that medical women look to in their careers and what functions they expect their role models to fulfil, the benefits of this sort of quantitative research approach lies in its capacity to provide us with more insight about the consequences of role modelling for women's workplace experiences. Specifically, we wish to understand whether there is any evidence that women who have more role models, more effective roles and a greater availability of role models have higher perceptions of occupational fit, career ambition and occupational heterogeneity. To gain this understanding, we conducted path analysis that involved regressing each of our key dependent variables on the role model predictor variables.

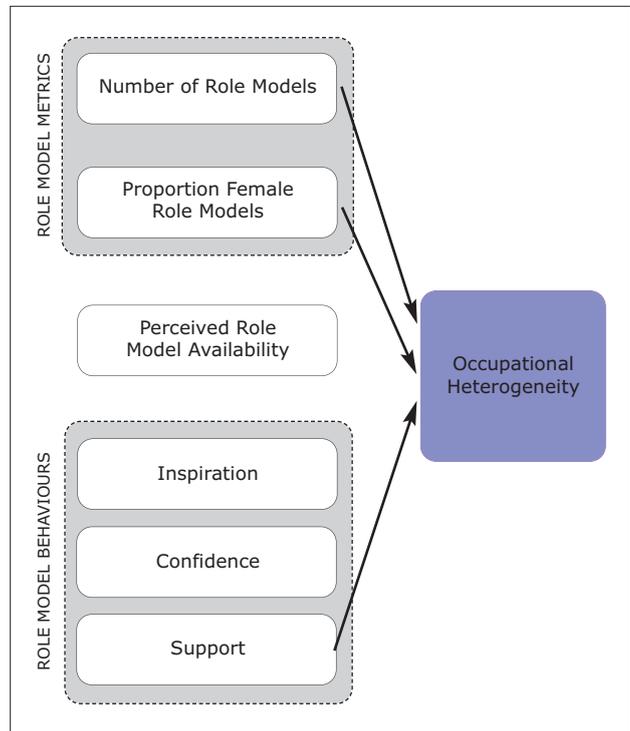
The figure below presents the results of the analysis predicting respondents' perceptions of occupational fit. As this figure demonstrates, the only role model measure that predicted occupational fit was respondents' perceptions of role model availability. In particular, the more medical women perceived that they had high levels of role model availability, the greater their reported levels of occupational fit.



The figure on the next page summarises the results of the analysis predicting respondents' levels of career ambition. Here it can be seen that while perceptions of role model availability are again predictive of career ambition, the extent to which role models boost confidence is also important. Both of these are positive predictors which means that women who perceived high levels of role model availability and who felt that their role models gave them confidence in their careers also reported higher levels of career ambition.



The final figure, below, presents the results of the analysis predicting occupational heterogeneity.



This pattern is rather different from the preceding analyses, and for the first time we find that the role model metrics are important for women's perceptions. In particular, women who listed a greater number of role models and a greater proportion of female role models were more likely to say that many different kinds of people could succeed in their chosen career path. So, while the preceding analyses suggest that when it comes to role models, more is not necessarily better, this analysis provides some evidence that more may be better when it comes to very specific occupational perceptions. Beyond this, as the figure shows, there was additionally a positive relationship between how supportive a role model was and perceptions of occupational heterogeneity. To the extent that respondents perceive some differences between who they are and who other members of their occupation are, it makes sense that receiving a welcoming message of encouragement and support boosts women's perceptions that there is place for many different kinds of people in their particular career.

Discussion

The findings of this analysis have very strong commonalities with the findings of the interview analysis. In particular, there was further evidence that women tend to identify a relatively small number of role models in their careers. While this could reflect the difficulty of finding individuals to model themselves on, it could also reflect the possibility that it is not necessary to have many role models to experience the benefits. One or two may be enough, if they are effective. This study also provided further evidence that men and women can be effective role models for female medics (although it seems that those women who identify more strongly as women are more likely to choose women). Finally, there was further evidence that role models are seen to fulfil three functions, that is to inspire, boost confidence and provide support. Although we did not assess respondents' closeness and contact with the listed role models, the fact that role models were seen to provide support indicates that these individuals must have been in a position to provide this support (by virtue of an ongoing, close relationship).

This analysis was able to build on the findings of the interviews in important ways. In particular, we were able to show that role models do matter for women's occupational experiences and perceptions. In general, respondents who responded more favourably to the role model measures also expressed higher perceptions of occupational fit, career ambition and occupational heterogeneity. Interestingly, however, the patterns of these relationships differed markedly. When we looked at the importance of the role model metrics (that is the number of models and proportion of female models), there was very little evidence that more models improved women's experiences. This supports the suggestion above that women have few role models because they do not need more. However, these role model metrics did seem to matter for respondents' perceptions that their career path was one that different kinds of people could succeed at. This makes sense when one considers that role models are likely to differ from one another in various ways and that being able to identify many (different) individuals who one can admire in one's chosen career shows that a range of personalities, skills and abilities can lead to success.

There was more evidence that perceptions of the availability of role models were important for women's experiences, as those women who reported high availability perceptions also reported higher levels of occupational fit and career ambition. This provides further evidence that it is the effectiveness (rather than the number) of role models that matters. When we examined the importance of specific role model behaviours, there was again some evidence that certain behaviours are particularly important. In particular, role models who were seen to boost women's confidence and provide support were associated with higher levels of career ambition and perceptions of occupational heterogeneity. It is very interesting to note that inspiration did not appear to play a unique role in our measures. This is particularly noteworthy when we consider that inspiration was one of the more frequent themes that emerged from the interviews and was the function that most role models fulfilled. This perhaps suggests that while finding a person inspirational is very important for the selection of role models, more practical assistance (in the form of boosting confidence or specific career advice) is necessary if medical women are to benefit from them.

When reflecting on these findings, it is important to keep the limitations of this kind of cross-sectional research in mind. In particular, the patterns that we observe here can be interpreted in either causal direction, which means that it is certainly possible that women who feel that they fit in and who are ambitious tend to show more positivity in their perceptions of their role models too. In the same way, it is possible that women who perceive that many people can succeed in their career path may also see more senior individuals as acting as potential models for them. Nonetheless, the fact that these survey findings align so closely with the thematic analysis of our discussions with medical women, where respondents themselves used strongly causal language in their discussion of role models, gives us confidence in our interpretation of the results.

General Discussion

These research findings are able to shed some light on the gaps in the literature that we identified at the beginning of this report: (1) the lack of evidence that role models make a material difference to women, and (2) the lack of evidence that standard role model interventions — those that increase the visibility of successful women — are all it takes to boost women’s ambitions to pursue male dominated medical specialties and positions.

Considered together, the qualitative and quantitative research components of this research project do support the frequent claims that role models may benefit women (like other underrepresented groups). In particular, most women claimed that the role models that they had had throughout their medical careers had made a material difference to their careers. Those women who reported higher levels of role model availability were also more likely to report higher levels of occupational fit and career ambition. Those women were able to identify a greater number of role models and who had a greater proportion of female role models were also more likely to perceive that many different kinds of people have what it takes to get ahead (i.e., that it is not necessary to match the masculine stereotype). Therefore, this research provides support for claims that role models matter for medical women.

However, what this research suggests is that standard role model interventions are not enough. The role models who make a substantial difference to women are the role models who are part of their daily lives: mothers, relatives, colleagues, supervisors and teachers. It is those individuals who are willing to take the time to nurture female medics that women identify as most effective — not the distant and impersonal symbols of success. In this way, our findings emphasize the importance of the intersection of role modelling and mentoring — it is when the individual that a female medic admires is willing to give them a helping hand that these women may most benefit. Of course, this is not to say that standard role model interventions do not have positive benefits; there are many theoretical reasons for expecting that they do. It is rather that these benefits (i.e., working in a context that celebrates women) will provide the background to women’s occupational experiences and will therefore be less salient to women than their daily personal interactions. What our research shows is that a positive context is not enough; women need positive personal relationships too.

Recommendations

The results of the present research programme lead to the following key recommendations for improving medical women's occupational engagement:

- Opportunities should be provided for women (especially junior women) to interact with a range of more senior male and female individuals.
- It is important that these opportunities offer the possibility of the kind of ongoing and personal interactions that facilitate two-way relationships between potential role models and more junior female medics. (In other words, it seems that the standard role model intervention that involves rolling out a single highly successful woman as a symbol of what is possible for women is unlikely to have substantial consequences).
- Although both men and women are able to effectively mentor female medics, there is reason for focusing on women when female medics are facing challenges associated with childrearing and work life balance. Nonetheless, it is important to consider that men who actively encourage junior women can be highly effective - especially in male dominated fields.
- While there is a great deal of discussion around the importance of inspiration in a role model, our evidence suggests that a person does not need to be charismatic and inspirational to be an effective role model. Rather, they need to boost the confidence of those behind them on the career path and provide support in the form of advice.
- Quality matters more than quantity. It is a better strategy for junior female medics to invest in interacting with a few good role models than in finding a multitude of models.
- Our work suggests that female medics' role models are not static across their careers. While some role models will be a constant presence across an individual's career, others will be selected for the insight that they bring to particular challenges. In light of this, it may be helpful for female medics to anticipate that the changes in their lives are likely to create a need for new models.
- For the medical workforce it is important for organisations to realise the practical implications of this "hidden" but vitally important work that women doctors perform for the medical workforce of the future as part of their job role.

References

1. Schein, V. E. Relationships between sex role stereotypes and requisite management characteristics among female managers. *J Applied psychology*. 1975; 60 (3), 340.
2. Peters K., Ryan M., & Haslam, S.A. To belong or not to belong: Evidence that women's occupational disidentification is promoted by a lack of fit with masculine occupational prototypes. *J Personnel Psychology*. 2014(a); 11 (3), 148-158.
3. Peters K., Ryan M., & Haslam, S.A. (2014a). Leaks in the pipeline: Evidence that immersion in a male dominated workplace may undermine the progression of female surgical trainees. Manuscript (University of Queensland).
4. Paice E., Heard S. & Moss F. How important are role models in making good doctors? *BMJ*. 2002; 325(7366): 707–710.
5. Wright S, Wong A. & Newill C. The impact of role models on medical students. *J Gen Intern Med*. 1997; 12:53–56.
6. Wright S. Examining what residents look for in their role models. *Acad Med*. 1996; 71:290–292.
7. Wright S.M., Kern D.E., Kolodner K., Howard D.M. & Brancati F.L. Attributes of excellent attending-physician role models. *N Engl J Med*. 1998; 339:1986–1993.
8. Merton R. K. (Ed.). *Social theory and social structure*. Simon and Schuster, 1968.
9. Levinson W., Kaufman K., Clark B. & Tolle S.W. Mentors and role models for women in academic medicine. *West J Med*. 1991; 154(4): 423–426.
10. Addis, A. Role models and the politics of recognition. *University of Pennsylvania Law Review*, 1996, 1377-1468.
11. Collier A. & Moreton A. Does access to role models influence future career choice? Impact of psychiatry teaching on recently graduated doctors in the United Kingdom. *Acad Psychiatry*. 2013; 1; 37(6):408-11.



Medical Women's Federation

Tavistock House North, Tavistock Square, London WC1H 9HX

Tel: 020 7387 7765

Email: admin@medicalwomensfederation.org.uk

www.medicalwomensfederation.org.uk



www.facebook.com/MedWomen



[@medicalwomenuk](https://twitter.com/medicalwomenuk)

Medical Women's Federation: © All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the prior written consent of the Publisher. A reprint service is available. Great care is taken to ensure accuracy in the preparation of this publication, but the Medical Women's Federation cannot be held responsible for its content. The views expressed are those of the contributors and not necessarily those of the Publisher.