Understanding the Non-Professional Needs of Early Career Doctors: An Interview-Based Study

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Research

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Abstract

Background

Specialty colleges and health services play a key role in supporting doctors in their early careers, fostering a highly skilled workforce to respond to the community's healthcare needs. In doing so, they are often well attuned to professional factors, such as long or uncontrolled work hours, but non-professional factors are less acknowledged. This is partly because there is limited research about the non-professional needs of early career doctors, impeding the capacity to tailor a response through structured policy and programs. This study aims to describe the non-professional needs of doctors in their early postgraduate career, including how they intersect with career and training experiences.

Methods

Semi-structured interviews were conducted with 32 male and female medical graduates working across all Australian states and territories, spanning a variety of specialty areas and early career stages (up to their 17th postgraduate year). Participants were asked about their career journey to date including non-professional factors related to their experiences.

Results

The results identified important non-professional needs, that strongly interplayed with career and training experiences, including: *children's education*; *partner's career needs*; *family stability*; *major life stages*; *proximity to the extended family*; and *spending time with immediate family*. Results also suggested clear gender differences, with female doctor's needs orientated to partner work and carer responsibilities, while male doctor's needs were oriented to spending time with family and meeting the family's needs.

Conclusions

This study highlights a range of important non-professional needs which should be routinely considered as legitimate needs within health service employment and specialty training arrangements. The non-professional needs appear to vary by gender, location and field of work, and whether doctors have partners, children or encounter major life events in their early career. Inflexible postgraduate training and employment, by both specialty colleges and the employing health service, are likely to create tension for early career doctors in their non-professional lives. Whereas accommodating these needs ensures early career doctors can realise their full potential, fostering participation, satisfaction and completion of various early career work and training stages, with positive consequences for community access.

Background

Doctors are people with families, friends and social interests, often unrelated to medicine. To date major policies and programs supporting doctors focus on their professional domains (1–3), despite non-professional needs potentially being central to their job satisfaction and observed recruitment and

retention patterns. The World Health Organisation (WHO) recognises the equal importance of personal and professional support, for retention, each being highly valued by health workers and potential determinants of where doctors work (4, 5). There is, however, an absence of literature describing the breadth of non-professional needs encountered by doctors in the early stages of their career, whereby failing to describe the needs of the 'whole person', affecting the capacity to shape of policy solutions and program structures. The early career of a doctor is a time of rapid personal and professional transition that is critical for setting up future working patterns that fit with their preferred work-life goals (6).

Postgraduate medical training is completed when most doctors are in the age group for consolidating long-term relationships, partners establishing their careers, having young children and purchasing a home (7–10). Many countries have transitioned to basic medical training of 4–5 years using a postgraduate course structure, after a minimum 3-year Bachelor degree is achieved (thus minimum age of 25 when emerging into the medical workforce). Graduating doctors therefore have more established lives when they reach early careers in medicine. Due to bottlenecks to get onto vocational training programs, early career doctors may face substantial professional pressures (11). The fierce professional competition and tension to fulfil postgraduate selection and education requirements needs to be considered in light of the non-professional lives, running parallel to their emerging career.

The World Health Organisation, in relation to personal and professional support for doctors, recognises the importance of living conditions, the working environment, outreach activities, support programmes, networks and recognition measures (5). Few studies have adequately described the personal or non-professional needs of doctors in their early career.

Research in postgraduate medicine highlights non-professional needs interplaying with choice of specialist career (12, 13) with some focus on the differences between male and females in their specialist choice due to non-professional needs. Female doctors target flexibility and support of personal circumstances, more strongly than males (6, 13–18). Lifestyle is also a key consideration, where female doctors associate this with compatibility of work with family obligations while male doctors may consider this with respect to leisure time and activities (7, 19). Non-professional factors including children and partner employment needs are likely to be mediated by gender. One study, not limited to early career stage, showed that male and female GPs moved away from rural locations in order to raise children and foster their educational needs (females immediately, males when children hit secondary school) and in relation to their male partner seeking work (20). Understanding these differences in the needs between male and female doctors during early career is important due to the increasing proportion of females in medicine (21–23).

In summary, while the literature points to the importance of work-life balance issues in early medical careers, it fails to adequately describe what the non-professional needs are and how they relate to different types and genders of doctors. Yet recognising and supporting non-professional needs, has important implications for recruiting and retaining doctors within medical college training systems and hospitals. For policy makers and employers, it may also underpin the capacity to achieve a gender-

balanced workforce. This study aims to describe the non-professional needs of doctors in their early career, including how they intersect with career and training experiences.

Context

This study uses data from Australian doctors, where all medical graduates work for at least two years as 'junior doctors' prior to specialist training. Many doctors spend longer as a junior doctor as it is challenging to access vocational training programs. Once a doctor has obtained a vocational training position in a specialty college, they then enter their postgraduate training period called fellowship training, typically of 3–6 years' duration, depending on the speciality pursued. As emerging fellows they are still considered early career compared to experienced colleagues. Therefore, we consider this period as 'early career' in this paper.

Methods

Design and implementation

A purposive sample of 32 graduates of The University of Queensland in Australia were invited to participate by email. Those invited spanned their 1st and 17th postgraduate year, in line with our definition of 'early career' (see context). The purposive sampling attempted to achieve a balance of male and female doctors, locations, a breadth of specialties and career stages (covering junior doctors through to fellows), with the focus drawing on different non-professional factors and early career experiences. Online interviews occurred for up to 60 minutes led by two PhD-trained qualitative female researchers (TG, PM) based in a private office, with the doctors located in a place of choice. Both interviewers had broad experiences and interest in the topic based on their employment in a regional training hub, though there was no pre-existing relationship with participants. An interview guide was developed (Table 1), piloted and used, with emerging themes prompted by the interviewers until data saturation was reached. Interviews were recorded and transcribed verbatim and not returned to participants for comment or correction.

Table 1
Interview guide

Question	Specific prompts	General prompts
Could we start by you telling me a little about yourself and your career as a doctor?	Things like your Current practice location, Area of Medicine, Stage of medical career, and where you did each stage of your medical training?	Could you please expand on that? That is very interesting, could you tell me more? Really, what was that like? Reflecting on that time in X, could you give me a bit more detail about X experience?
What are the major factors that have influenced your medical career journey to date?	*Identify factors that influenced participant's career decision, current practice location; area of clinical practice; amount of time devoted to clinical medicine; decision-making in the context of family situations, partner employment, incentives, professional support*	
What were the important time points when things happened that determined the current shape of your medical career?		
What made these time points important?		
What happened at those times and how did they affect your career trajectory?		
How much control have you had over how your medical career has turned out?	*Things like; going to medical school, internship location, vocational training, geographical location of current clinical practice*	
What are the factors that influenced (gave you more or restricted) that control?		
How easy (or realistic) is it to change where you practice (geographically); and also your field of medical practice?	*How flexible is a medical career; and does it vary at different times in one's life? Does it vary by area of medical practice? By where you live (city/country)?*	
Have you considered changing where you practice or your field of medical practice?		
Have you had to move from where you were living to pursue a training opportunity, or to meet clinical/professional college requirements?		

Question	Specific prompts	General prompts
Did you later return to where you were?		
Have you had breaks in practice?		
Can you tell me the reasons for those breaks?		
What would have made your medical career progression better informed?		
What (else) would have improved the way your medical career has progressed?		
Before I turn off the recording device, is there anything else you would like to comment on?		

Analytical approach

Transcripts were read by the broader research team (addition of BOS, MM), in blocks of nine and key themes were identified through inductive coding (24). The main author then conducted an in-depth review and analysis of the data and led discussions with the research team, including discussing both major themes and diverse cases, until consensus was reached and the data narrative and thick description was achieved (25, 26). In the process, subjective values and inclinations of the researchers were balanced out, including establishing the most homogeneous themes possible.

Given our interest in the non-professional experiences, we used a phenomenological approach to describe these by exploring them from the perspective of those who have experienced them (27), in this case, doctors who were reflecting on their current or recent experiences.

In the data analysis process we used subtext to quotations to denote the characteristics of the person as J '*junior doctor*', T '*trainee*', or F '*fellow*'; work locations in a R 'rural' or M 'metropolitan' location; M '*male*' or F '*female*'; Spec '*chosen or completing/ed a specialty*' or GP '*general practice*' (described in Table 1).

This study had ethical approval from *The University of Queensland ethics committee (Ref no 2012001171)*.

Results

Overall, 32 participants responded who were working across different states and territories of Australia, with representation across genders, early career stages, specialist type and location of work (Table 2). Our findings indicated that six key themes represented the non-professional needs of early career doctors, shown in Fig. 1. These included: *children's education*; *partner's career needs*; *family stability and support network*; *major life events*; and *spending time with immediate family* (Table 3). These factors strongly interplayed with career and training experiences, with the potential to affect participation, satisfaction and completion

Table 2
Summary characteristics of participants (n = 32)

Characteristics	n (%)
Sex	
Female	16 (50)
Male	16 (50)
Early career stage	
Junior – prevocational doctor yet to start a specialist training program but may have chosen a specialty of interest/ attempted to join a training program	8 (25)
Trainee - doctors who are at least in their second up to their tenth postgraduate year currently enrolled in a specialty training program.	10 (31)
Fellow - denotes fellows who have completed specialty training, typically from their fifth to 17th postgraduate year.	14 (44)
Specialist type	
GP	12 (38)
Other specialist #	20 (63)
Rural background	
Yes	8 (25)
No	24 (75)
Location of work	
Metropolitan *	18 (56)
Rural *	14 (44)

 # Other specialists included: anaesthetics; ophthalmology; surgery; physician; radiology; psychiatry; oncology and; dermatology.

**Metropolitan location: Modified Monash Scale ranking = 1. Rural location: Modified Monash Scale ranking = 2–7* (33).

Table 3
Identified themes related to the non-professional needs of early career doctors

Theme	Discussion
Children's Education	Doctors prioritised their children's education and sought stability and high quality in the education received by their children. The geographical relocation often associated with postgraduate training requirements placed pressure on the early career doctors to regularly change their children's schools or be forced to endure extended periods of separation from their families to meet training requirements.
Partner's career needs	Female doctors who had partners that were associated with a non-medical oriented profession, were well-educated or who held high-level leadership positions tried to obtain training in geographic locations that offered employment for their partners. This was sometimes to the detriment to their own career with missed opportunities in their postgraduate training and work.
Family stability and support network	Male doctors indicated that they would move themselves, being apart from their partner and children, to undertake training and work, ensuring stability for their family. Female doctors, showed a need to work in in locations where their partner and family were located, being near extended family. This family network enabled the female doctors to receive support in caring for their children allowing them to work the hours required of them in the postgraduate period.
Major life events	Life events such as buying a house, getting married, or illness were seen to influence a doctor's early career. These events affected a doctor's ability to geographically relocate regularly, as is often required in the postgraduate training period, or work the full-time hours required of early career doctors.
Spending time with immediate family	Male GP's were pleased to be able to enjoy life outside of medicine and spend time with their families, while female GP's expressed an interest in working part-time hours to enable them to accommodate time with their children.

Children's education

Participants prioritised a stable and high quality education for their children. They noted that the inflexibility in training requirements of early career medicine made it challenging to fulfil this interest. The expectation placed upon early career doctors to change geographical locations for postgraduate training, pressured doctors to choose between children regularly changing schools or absorbing extended separation periods from their children and partner. A third option, to avoid the upheaval for their families, was noted where doctors may resign from postgraduate training positions and pursue other opportunities, changing career directions.

I suppose having children in school would certainly change your flexibility, especially if you're midway through a training program because there is requirement sometimes, depending on which region you're training, to move around, which can cause instability in schooling and accommodation. (TM1_Male_GP)

I've got two young children and a husband who works full time... I was a little bit annoyed that they would send me away…with my children, having to take my children out of school. My husband was going to

have to quit his job and, in the end, it was just easier for me to quit. (TM2_Fem_GP)

Interviewees tended to pursue employment opportunities based on where they perceive good schooling is available and this may shape their career in the postgraduate period. If based in smaller rural communities, boarding school or fly-in, fly-out work models were noted as possibilities to enable children to receive a stable education, but these can also be unattractive options.

And [town X] was really good as far as schools. It's got good schools, so I think the reasons I've been - well, my point of view, is for the kids. So some people send their kids to boarding school… it's probably less of an option [for me]. (FR2_Fem_GP)

And it might be that we move to the city and I fly in, fly out one week in three or something…once the kids get to high school. That might be something we have to consider. (FR1_Male_GP)

…I could work as a GP anywhere I chose too. But I would be restricted as far as my children's education…we'll probably stay in [metropolitan city] until at least the kids have finished high school. (FM2_Male_GP)

Partner's career needs

Female doctors whose partners had non-medical careers perceived unique impacts on their own career. In contrast, male doctors expressed minimal concerns regarding their partner's careers. Female doctors indicated choosing geographic locations in the postgraduate period, where there was work for their partners, particularly for those who were training and working in rural areas. If their partner's job allowed for flexibility regarding the location they worked, this offered more options in the postgraduate period, and potentially the chance for females to work in smaller rural communities.

Me personally, my partner is not in a medical field, which just makes it hard. If I am potentially moving around for the next few years of my training…you have to make sure there's work available for your partner. (TR4_Fem_Spec)

I headed to [X] because when I applied to anaesthetics, that was the position I was offered, and my husband and I discussed it…and decided that would be the easiest place for him to find a job as well. (TR1_Fem_Spec)

My husband had a flexible, really supportive work environment at [X] and he was allowed to work from home for a year, so that allowed me to choose the rural destination. (FR6_Fem_GP)

Female doctors with well-educated partners or those who held high-level leadership positions indicated more limitations on where they could work. This could influence where female doctors in the postgraduate period trained and practised, including their availability to work in rural areas.

…for him to move to a rural community would be very difficult. He's in business, so he used to own his own business and he does CEO type roles…we've negotiated that [X] is more rural than [Y] and then less

rural than I'd like to be. (TR1_Fem_Spec)

…my husband, what he wanted and needed work-wise…he was doing his PhD and I didn't want to, generally speaking, live apart from him…it certainly influenced where I applied for Fellowship jobs… (FM1_Fem_Spec)

… with my husband being too well educated to work in a rural setting…no one predicts that your husband's going to do a PhD and be overeducated and you're going to have children, which are going to be difficult to move… (TM2_Fem_GP)

The consideration that female doctors gave to their partners' careers may result in missed opportunities in their early career. Female doctors tended to place less importance on their own careers in comparison to their partners' careers.

I make do with wherever I work to support my husband. (JM5_Fem_Spec)

…I probably would've got on the [college training] program if I'd taken those [PHO and SHO positions], but my husband's career meant that we couldn't move…I had to turn both of those down. (TM2_Fem_GP)

Doctors' who had partners also in the medical profession, regardless of gender, were more willing to support each other in early postgraduate career milestones. However, this played out in different ways depending on the partner's position and where they worked.

…Townsville, Darwin, Sydney, Brisbane; four cities in four years. I've been able to do it because I have to, not because I want to, and I do admit that I've only been able to do it because my partner is also medical and she understands the need for constantly moving around long distance as well. And she'll have to do it too. (JM3_Male_Spec)

Sometimes it makes things easier if you have a medical partner…if they do have to move around the state, or even interstate, if their partner's also medical, they can also kind of work anywhere at the same hospital. (TR4_Fem_Spec)

Decision to move to [X] was actually influenced by my husband who is a GP. So, he's finishing up his training here and he wanted to move from [Y] for a few years. So, he moved and I got a job here as a result of that. (JM5_Fem_Spec)

Family stability and support network

Beyond maintaining educational stability for children, a broader focus was on stability of the family unit and its proximity to extended family support networks. Male doctors indicated that they would move by themselves in the postgraduate period, prioritising their own instability rather than relocating the whole family.

I was a rural-bonded scholarship holder, so, I had to work outside capital cities…I chose to travel for the six years every day…so that they [family] didn't move, but I did. (FM5_Male_Spec)

As an advanced trainee I got told I had to come to [X] for six months…so once again, my wife stayed in [Y] and they accommodated me in [X]. (FR8_Male_Spec)

In our data, female equivalents did not use this option; instead, they trained in locations where their partner and family were based, as was further shown in the *partner's career needs* theme. For some female doctors the ability to live near extended family and receive support in caring for their children was an enabler of working the hours required of them in their postgraduate training.

… I've really advocated for myself to stay in [X] for next year [relocated for family reasons], whereas with public health training they were wanting me to rotate out again. So, I just said, "You know, my daughter's in school now, I really rely on these people around me to support my career and support me looking after her with the demands". (TR2_Fem_Spec)

…we sort-of stayed in [metropolitan location] because my extended family is there and my husband's extended family are all in [metropolitan location]. (FM1_Fem_Spec)

Major life events

Respondents relayed some tension in fitting major life stages around training. Some doctors considered minimising major life events to reduce their intrusion on early career goals. For others, their career stage made it inevitable that major life events like home ownership, would have a big impact on the capacity to move for career development.

Do all your training before you consider having a life. It makes it a bit easier… the young, single, mobile registrar trainee versus the person married with a mortgage, having to mow the grass on the weekend after being away for a training course. (FR3_Male_GP)

…once you've got to the 12th year of your training…most people have a partner…or have a family…are thinking about or have property or a home or assets that are somewhat fixed. At that point, it becomes very difficult and they're much less likely to move locations. (FR6_Fem_GP)

The lengthy periods of postgraduate training meant that life events had the potential to influence career decisions.

…soon I'll be getting married. That's something that has restricted where I'll be working next year…I specifically chose to remain in [X] purely because I'm getting married next year and I don't want to be moving around again…. (JM3_Male_Spec)

Illness, both personally and within their families, are major life events that can influence a doctor's early career, through the need to work part-time to meet their personal needs or constraints.

…I then asked to go part-time because my dad was dying at that point. He had weeks to live. They said, "You can have two weeks' leave, but you won't be allowed any more than that, and when you come back, we expect you back full-time shift work."…I resigned and my dad took a bit longer to die than expected… (JM6_Fem_GP)

I'm part-time purely because it's easier around my treatment and the children. (TM2_Fem_GP)

Spending time with immediate family

Interviewees of both genders expressed interest in spending time with their families. Male GPs related to being content in their career during the postgraduate period because they could enjoy life outside of medicine and spend time with their families.

So, it's not all about a career, is it with our lives? I don't want to spend Christmas Day at the hospital. I want to open up presents with my kids…that's the thing many people in medicine forget is they're all some form of type-A personality, strive, strive, strive, read books…Stop thinking and enjoy. (FR3_Male_GP)

…my time is now as a family person…and community is a really important thing. So, I could've forced other things here, but I've come back and said, "Okay, I've got a great life and a great thing with my family as well as lovely medicine and great people to practice medicine with… I've got to look after my family a little bit." (FR1_Male_GP)

In contrast, female GPs expressed a desire to formally adjust work hours or accommodate time with their children, but a lack of flexibility affected their career directions. No male equivalents, nor specialists, expressed interest to work part-time.

I took it to the director of the department and I said, "Oh, this is what I want. I really want to work part time and I really want to see my children more and do my training over a longer period."… So, she basically just said, "No, we don't do that. I'm not going to support you… (FR6_Fem_GP)

… one friend was told by someone at a very large hospital, a tertiary hospital in [X], a head of a department, that she had to choose between being a mother or a doctor because they would not accommodate her as a mother…I've had two friends that have left because there's just been no flexibility at all and they're both single mothers… (JM6_Fem_GP)

Discussion

This study has explored the non-professional needs of early career doctors, showing some strong gender differences. These needs have the potential to shape career participation, satisfaction and completion of postgraduate work and specialty training. The central non-professional aspects include needs of children, partner, major life events and lifestyle stability. Our data indicated that female doctors may be more likely to change their career course than males, to achieve an overall balance with other commitments and partner interests. Maintaining a course of employment and training, depended on having access to wider

family support. In part, this is related to the long and unpredictable hours that doctors may need to work in order to complete the postgraduate stage of training. Female doctor's needs were orientated to partner work and carer responsibilities, while male doctor's needs were oriented to spending time with family and meeting the family's needs, highlighting for males, these may be preferences, but for females they are structural barriers.

As a source of tension, postgraduate training often requires regular geographical relocation and rigid work and training schedules with minimal flexibility, all of which can be disruptive to doctors' priorities of children's education, partner's careers, and the family's lifestyle/social connections (7, 28, 29). Male and female doctors with medical partners may find the requirement to change training locations easier as they have a sympathetic base of support; however, the capacity for two postgraduate pathways to align could also vary depending on the vocational pathway. Female doctors, whose partners work in non-medical specialised fields, may place their partner's career advancement before their own (30, 31). Females with partners of flexible and non-specialised employment were more easily able to work rurally. Notably, male doctors did not identify giving major consideration to their partner's career needs. This may be because they did not have medical partners. However, it is likely to be important for training programs and health services recruiting female doctors to acknowledge that females may need more support to participate and satisfactorily complete postgraduate work and training requirements. This is critical given that a growing proportion of medical graduates are women.

Our findings suggest that the different life stages doctors will find themselves in at various times should be accounted for in training or recruitment cycles within early medical careers. Despite the extensive planning required around major events like marriage, buying a home and/or having children, many doctors in early career are still required to relocate regularly. In particular, female doctors are planning for both children and partner's careers around postgraduate work and training, often to the detriment of their own career and potentially further impacted by inflexible working conditions (18). The capacity for females to move was more complicated by prioritising being near extended family for the level of support they needed to juggle training/work roles. The capacity to negotiate ongoing training in specific geographic locations is particularly challenging for training programs that randomly allocate positions, again sometimes to the detriment of those who have more personal constraints, including illness.

Our findings showed that a key consideration for recruiting both male and female early career doctors is children's educational opportunities and family stability. This, and work for partners, may be particularly pronounced in rural work and training where training often involves moving locations and educational opportunities may be considered less than in cities (20). Failing to consider these issues within rural recruitment will be at the detriment of achieving early career doctors in rural areas, and it likely to explain the poorer uptake of rural medicine by contemporary female doctors (32).

Our study is not without its limitations. It is limited to a single cross-sectional interview of a university cohort of one country, Australia. The applicability of the findings across different countries and cultures would be of value to explore in future research, especially given that our findings about gender may vary

by socio-cultural constructs and norms. Further, our findings could vary depending on postgraduate work and training systems in medicine in different countries. It should also be recognised that these non-professional needs may change by evolving career stages, and also as the workforce and societal constructs change, such as the feminisation of the medical workforce (18, 21–23).

The strengths of our study are in the methodological robust design that included the recruitment of research participants who: were not institutionally affiliated any longer; were from different Australian states and territories; and represented different specialties across the medical field. The design also ensured male and female representation. The phenomenological approach used in describing the non-professional needs of doctors in their early career working lives also provided a basis for exploring these needs through the lens of those who have experienced them.

Conclusion

Our findings have shown that early career doctors have specific non-professional needs, linked to children, partners, life events and family connection that strongly interplay with career and training experiences. They appear to vary by gender, location and field of work. The non-professional needs have the potential to affect participation, satisfaction and completion of postgraduate work and training, particularly for female doctors. Speciality colleges, employers (hospitals and other health services), recruiters and training systems should give consideration to 'whole of person' factors in postgraduate work and training policies and programs. In particular, current training and employment pathways could be more flexible, individually tailored, and accountable to the non-professional dimensions of doctors. By recognising and supporting the non-professional needs of early career doctors, the true potential of a skilled, satisfied and distributed workforce can be realised, benefiting community well-being.

Abbreviations

WHO: World Health Organisation.

Declarations

Ethics approval and consent to participate

This study had ethical approval from *The University of Queensland ethics committee (Ref no 2012001171)*.

Consent for publications

All authors give their consent for publication.

Availability of data and materials

Data and materials generated and/or analysed during the current study are not publicly available due to ethics protection but are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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None

Authors' contributions

TG led the research data collection, analysis and writing. BOS assisted with the analysis, writing and proof reading. MM designed the study, assisted with analysis, writing and proof reading, PM assisted with the data collection, analysis and proof reading. All authors were researchers with different experiences and backgrounds that supported the reflection on the findings and their implications.

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Figures

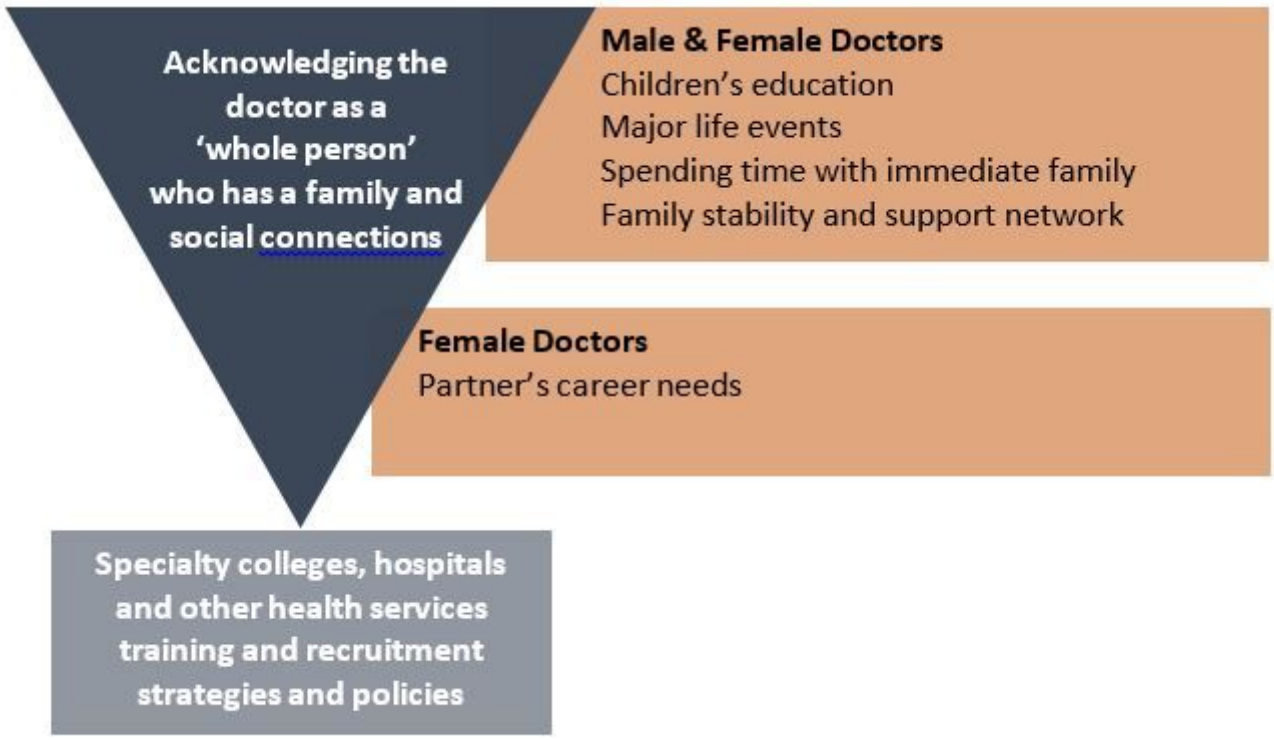

Figure 1

Non-Professional needs of doctors in their early career