Title

Gender, flexibility and workforce in the NHS: a qualitative study

Running title

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Abstract

Data from the General Medical Council show that the number of female doctors registered to practise in the UK continues to grow at a faster rate than the number of male doctors. Our research critically discusses the impact of this gender-based shift, considering how models of medical training are still ill-suited to supporting equity and inclusivity within the workforce, with particular impacts for women despite this gender shift. Drawing on data from our research project *Mapping underdoctored areas: the impact of medical training pathways on NHS workforce distribution and health inequalities*, this paper explores the experiences of doctors working in the NHS, considering how policies around workforce and beyond have impacted people's willingness and ability to continue in their chosen career path. There is clear evidence that women are underrepresented in some specialties such as surgery, and at different career stages including in senior leadership roles, and our research focuses on the structural factors that contribute to reinforcing these under-representations.

Medical education and training are known to be formative points in doctors' lives, with long-lasting impacts for NHS service provision. By understanding in detail how these pathways inadvertently shape where doctors live and work, we will be able to consider how best to change existing systems to provide patients with timely and appropriate access to healthcare. We take a cross-disciplinary theoretical approach, bringing historical, spatiotemporal and sociological insights to healthcare problems. Here, we draw on our first 50 interviews with practising doctors employed in the NHS in areas that struggle to recruit and retain doctors, and explore the gendered nature of career biographies. We also pay attention to the ways in which doctors carve their own career pathways out of, or despite of, personal and professional disruptions.

Keywords

Gender, health workforce, NHS, equality, diversity and inclusion, medical careers

Highlights

- Medical training pathways can be experienced as inflexible by those in training.
- Without the flexibility required for trainee doctors to manage family life, the unintended consequences range from burnout to leaving the profession entirely.
- In particular, gendered experiences make impact on medical training pathways and subsequently on recruitment and retention.
- This inflexibility has implications for recruitment and retention, but also equality, diversity and inclusion within the medical profession.

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Introduction

Medical workforce availability is a longstanding concern in healthcare services across the world. Perceptions of such concerns manifest differently in different locations. Internationally, the 'brain drain' from the global south to the global north is key.[1,2] The loss of skilled workers from low and middle income countries has led the World Health Organisation to publish the Global Code of Practice on the International Recruitment of Health Personnel,[3] outlining the countries facing the most systematic workforce challenges and aiming to stop further 'drain' from these countries.

In other places, such as the UK, the number of medical trainees leaving the country (temporarily or permanently) to work in other countries such as Australia and New Zealand is seen as a threat to safe staffing levels.[4] Again, this is a longstanding concern rather than a new one, visible in the literature since the 1960s.[5] Australia, New Zealand, the USA and Canada (and others) struggle with recruitment and retention in remote and rural locations and work to adapt training and careers accordingly.[6,7] Despite substantial interest in the topic of recruitment and retention across the medical workforce, little meaningful change has been made over time, with issues in staffing stubbornly persisting.

The policy response to these issues has often relied on financial incentives to improve recruitment and retention.[8] We argue here that this does not take into account the lived experience of working medical professionals, and that while additional resource would be welcomed by many (see the recent UK industrial action calling for pay restoration),[9] this alone is inadequate to resolve the problem. In particular, we use the concept of flexibility to explore how the needs of healthcare workers might be better understood. We see flexibility as a form of social capital,[10,11] available to some doctors but not others.

This concept of social capital, drawing on a Bourdieusian construction of the networked resources available to a person,[12] allows us to understand how some doctors may not be able to access opportunities needed to progress and suceed throughout training. Examples of these networked resources can be personal and interpersonal (e.g. availability of family members to support caring responsibilities, capacity to geographically relocate easily and availability to work extra hours) but are also partly economic (e.g. availability of financial resource to move geographically, capacity to move to areas with high rents/ house prices).

Training pathways in the UK are tightly regulated in terms of numbers of students, available career pathways, and options within training such as geographic location, availability of part-time working and specialty choices. Training is also a time consuming process, depending on specialty, taking a minimum of nine years to reach a permanent post. More often, this is closer to fifteen years. This has major implications for those in training pathways, with an expectation of multiple geographical relocations and competitive recruitment. Flexibility is not something that has been available within formal training pathways in the UK; for example working less-than-full-time during early training was until recently only possible for 'well-founded' reasons.

Flexibility is used here then as a shorthand for the service and training demands on doctors to move around, and capacity for doctors to adapt to the needs of the health service in terms of their location, working hours and demands on their time regardless their personal life events and circumstances.[13] What has not been previously recognised is how this need to be flexible, particularly during training, affects access to opportunities such as higher

prestige specialisms. As will be explored, we therefore frame ‘flexibility’ in terms of place/location, career stage, and specialism/specialisation.

Issues in this training pathway have long been recognised, with research noting there has previously been an ‘attrition point’ five to seven years post-graduation.[14] Doctor-led adaptations to training pathways are visible, as those in training do not progress into further core/ specialty training, refusing to commit to a training pathway and instead take on additional locum or non-training roles. One recent paper outlining students’ intentions post-graduation shows the extent to which this has been normalised within discussion of career intentions.[15] Alongside these training pathways, there are other ways to work in the NHS, in a temporary (locum) role, or a specialty and specialist grade (SAS) doctor roles, which sit alongside training roles. However, these informal adaptations present a major problem to those in control of workforce planning, who cannot rely on the projected ‘pipeline’ as envisaged. Our paper fills a gap in the literature between recognition of these issues, and the lived experience of doctors navigating this space within their career.

As workforce characteristics (gender, age, home location, ethnicity etc) change, these different characteristics have an impact on the availability of staffing across healthcare services, and therefore affect access to care. The rising number of women in the workforce has been recognised internationally as a challenge to existing expectations around medical training and workforce management, with a need to facilitate different working patterns. In the UK, understanding the increasing diversity of the medical workforce is vital to addressing concerns about staffing. This paper focuses on gender as one aspect of the increasing diversity of medical practice. Although we are interested in the overall changing demographic profile in medicine, and in particular, its intersectionality in terms of race, gender and socio-economic status,[16] we focus here on gender as the most prominent and visible example within the workforce. As social scientists, we regard gender as performative, rather than essentialist (c.f. Butler)[17] but remain interested in how gender affects the lived experience of doctors training and working in the UK.

Aims and scope

This paper aims to explore how gender intersects with medical training pathways, using the concept of flexibility as an interpretive lens, to try to understand what impact it may have on the recruitment and retention of doctors in the UK. The paper critically examines the role that gender plays in the workforce ‘crisis’ that impacts access to care in the UK specifically, with relevance for issues experienced across the globe.

The paper reports data from the large-scale multi-method study, *Mapping Underdoctored Areas: the impact of medical training pathways on NHS workforce distribution and health inequalities*.[18] The overall research project design comprises archival analyses, geospatial statistics and career biographical interviews with doctors working in the NHS in four regions across the UK. Our primary research focus is to improve medical workforce recruitment and retention in socio-economically deprived areas by identifying the impact of medical training pathways on workforce distribution and proposing how, when and where interventions might be facilitated to improve outcomes.

The focus of our overall study is not specifically gender, but our qualitative data analysis speaks strongly to how the times when doctors are on medical training pathways overlaps with, and sometimes disrupts, other significant events in their lives outside medicine, and how this has implications for their careers as well as other decisions such as where to live, whether or when to have children and how to create work-life balance. We conclude that while the profession as a whole has changed in terms of gender balance, the career

pathway that doctors are expected to take has not adapted to reflect this, and this has implications for equality of access to opportunities within the workforce.

Gender in medicine

According to the most recent statistics from the General Medical Council (GMC), who license doctors across the UK, there has been a 22% increase in the number of female doctors, compared to a 15% increase in the number of male doctors.[19] Overall figures remain at 49% women and 51% men on the medical register, which means women are still slightly under-represented in terms of the wider demographic profile of the UK.[19] However, despite this increase in gender equality across profession as a whole, there is still significant under-representation of women in some specialties such as surgery.[19]

Longitudinal research in the UK, conducted since the 1970s[20–22] outlines the longer term implications of this trend towards more women being in the workforce. In particular, data collected in these surveys show how medical work has influenced doctors' decisions about important aspects of wider life. One dataset around parenthood demonstrated that the intention to have children had an influence on specialty choice for 47% of their cohort of respondents.[23]

A similar trend towards an increasing number of women in the workforce can be seen internationally. The impacts of this change are widely recognised through increasing part-time working, speciality choices remaining deeply gendered, and a lack of leadership roles for women despite their increasing workforce representation.[24] Hannawi and Al Salmi reference this effect of gender on specialty and leadership as a form of discrimination experienced by women who are unable to progress and realise their full potential.[25]

There is emerging evidence which suggests that this lack of women in certain specialties and in leadership roles also affects patient outcomes. For example, a recent Canadian study analysing the outcomes from surgery for over one million patients found that those treated by female surgeons had lower adverse outcomes in short and long term follow up (90 days and one year postoperatively) compared with those treated by male surgeons.[26] Although this leads the authors to consider the gendered characteristics of women working in surgery, we instead consider this in relation to 'survivor bias' in that the difficulties experienced and documented by women working in surgery mean that to remain in the profession, the commitment and dedication, and level of skill required must be exceptional.[27]

However, while it is clear that gender impacts medical workforce planning, and to an extent patients, there has not been a sustained policy response to the increasing number of women in the workforce. Any gains made by women have been in spite of, and not because of, the systems and structures in which they work. Formal training pathways remain fundamentally inflexible, with medicine in the UK lagging behind other careers in offering family-friendly environments for those with caring responsibilities (e.g. young children or elderly relatives). The editorial in 2019's special issue of The Lancet *'Feminism is for everybody'* outlined the 'overwhelming conclusion […] that, to achieve meaningful change, actions must be directed at transforming the systems that women work within.'[28]

We pay attention to Sharma's[29] call to attend to the lived experiences of medical professionals, noting the importance of moving beyond describing the practical challenges and towards considering how representation within the profession might be more actively manged. By highlighting how the training pathway structures themselves disrupt doctors' lives and career opportunities, and how flexibility is a form of social capital, we offer a fresh, situated practical perspective on workforce planning, demonstrating how paying attention to

the experiences of doctors' working lives may have implications for understanding further concepts such as burnout amongst the medical profession.

Methods

Data collection and analysis for the overall research project are ongoing. Here we report on a subset of qualitative data, focused on the first 50 semi-structured in-depth interviews with doctors. The qualitative approach was selected to fully explore participants' experiences of medical training and how this training occurred within the context of their lives.[30] By focusing on experiences in medicine rather than hypothesising about future decisions or preferences, data were grounded in the day-to-day impact of career decisions already made.

Recruitment and participants

To date, 50 doctors across primary and secondary care have been recruited to participate (table 1) from three regions (Lincolnshire, North Lancashire and South Cumbria and North London) encompassing multiple NHS acute, mental health and community trusts. Two of these regions were selected for the research project as case studies because they struggle to recruit and retain doctors, with one (London) as an over-subscribed location, where there is greater competition for training positions and senior appointments. Doctors were recruited through their organisations (secondary care) and via local Clinical Research Networks (primary care). All participation was voluntary, with purposive sampling to gather a range of gender, ethnic background, career stage, era of medical training, specialty and location. Those volunteering to participate completed a short demographic survey to confirm eligibility, before being invited to interview. Demographics roughly align to current data available on workforce,[19] though our sample has more doctors from diverse ethnic backgrounds than the overall population of registered doctors in the UK. This diversity is due to the focus on underdoctored areas, which are more likely to employ international medical graduates than over-subscribed areas.

Table 1: Interview participant demographics

Current Role	SAS/ Not currently in a training programme	3
	General Practitioner	29
	Specialty Trainee (ST1-3)	4
	Speciality Trainee (ST4-8)	2
	Consultant	9
	GP trainee	1
	Foundation Year 1	2
Year of graduation	1980-1989	2
	1990-1999	14
	2000-2009	11
	2010-2019	20
	2020-2023	3
Gender	Male	25
	Female	25
Age Range	25-34	15
	35-44	15
	45-54	14
	55-64	6
Ethnicity	White: English/Welsh/Scottish/Northern Irish/British	25
	White: Any other White Background	2
	White: Irish	1
	Mixed/Multiple Ethnic Groups: White and Asian	1
	Asian/Asian British: Indian	5
	Asian/Asian British: Chinese	3
	Asian/Asian British: Pakistani	6
	Asian/Asian British: Bangladeshi	1

	Black/ African/ Caribbean/ Black British: African	4
	Other: Arab	2

Ethical approvals

Ethical approval was granted by FHM Research Ethics Committee Lancaster University on 22 August 2022 (ref: FHM-2022-0970-IRAS-1). Health Research Authority approval was granted on 05 September 2022 (ref: IRAS 317106 and 22/HRA/3666) and capacity and capability to participate was confirmed by each organisation. As the data presented here are taken from detailed individual narratives and are potentially identifiable, care has been taken to anonymise extracts, demographic data are presented in aggregate, and this data linkage with participants has been minimised (participant number, gender, and role).

Data collection

Data were collected in semi-structured interviews, conducted online using Microsoft Teams. A semi-structured interview schedule was designed to guide participants through a chronological career narrative, ending with broader questions on recruitment and retention within the NHS. This allowed for comparability between participants while encouraging for flexibility and individuality in responses. The interview schedule was piloted before interviews commenced. Interviews typically lasted 60 minutes, with some up to 90 minutes. Interviews were conducted between November 2022 and October 2023 by two interviewers (LB and TP). All interviews were recorded and transcribed in full.

Data analysis

Data analysis was conducted in several stages, including independent review by multiple team members and collated in shared sessions for further analysis. The constant comparative approach[31] was used as the guiding principle for analysis, allowing the data to lead the coding framework and development of themes. Initially, a small number of transcripts were reviewed by two members of the research team (LB and TP). Emergent themes were identified to create an initial analytical framework. Two members of the research team (TP and CKC) then worked independently to code the transcripts. An in-depth review and analysis of the initial coding was conducted by LB, TP and CKC. The whole team contributed to further analysis sessions, which aimed to establish consensus, while retaining sensitivity to the diversity of participant views and experiences. These analytical sessions confirmed agreement of key themes, with synthesis of themes focused on the broader project research questions around recruitment and retention. Based on this in-depth familiarisation with the dataset, a focused analysis using gender as a sensitising concept[32] was used to consider the dataset again.

Results

From our analysis of the first 50 interviews in our dataset, supported by analytical discussions with the wider research team, three main themes were identified that support understanding of how gender intersects with medical training pathways, and how a need to be flexible is experienced. First, it was clear that training pathways were the least flexible when trainees needed the most flexibility in their wider lives, impacting on decisions around partners and spouses, children and choice of specialty. Second, this lack of flexibility was an issue for equality and diversity within the workforce, limiting professional advancement for those who could not meet wider, often tacit, demands of training. Finally, we found that many doctors worked hard to make their careers satisfying, fit around family life, but this was sometimes at great personal cost, leading to experiences described as ‘burnout’.

The role of flexibility in medical careers

The theme of training pathways being inflexible and requiring significant commitment to career progression at the same time as trainees needed greater personal flexibility was particularly present in discussions of participants' early careers. We first refer here to flexibility in terms of place/location. Given the diverse nature of medical practice, there was the potential for participants to be any kind of doctor they imagined, and to practice in any part of the country. However, this potential was in tension with the needs of the NHS to provide a service. Participants recognise reflectively that career choices were constrained. In reality, they could *not* 'go anywhere' or 'do anything.' The structure of training (outlined in the introduction to this paper) limited individual choice and control, leading participants to feel constrained by their work.

In particular, the lack of flexibility emerged repeatedly in discussion of the national training numbers (NTNs) issued for specialty training roles by the UK's medical training organisations (including the organisation now known as NHS England Workforce, Training and Education, formally Health Education England). Several participants mentioned the need to move across the country to access a training placement, or being restricted in choices because there were no training placements.

> *"I had some gaps [in required experiences] on my CV… I wanted to do orthopaedics […] I went from [South Wales] basically to [North East England] to take the training number. I didn't really want to go to [North East England], but that was just tough: I just saw it as eight years of pain and that would be it." (P026, female, GP)*

> *"I was still thinking I wanted to do neurology. […] I couldn't actually apply to neurology at all, because MMC constrained applications to within your region, and … the neurology rota was fixed for everyone who was already in rotation at [location], so there were technically no numbers, and so it meant that you couldn't apply, essentially. […] [It] goes to show it's like a Sliding Doors [film] situation: wrong place, wrong time can make all the difference." (P036, male, consultant)*

For some, the differences between work-as-imagined versus work-as-experienced changed their career pathways. P047, in a discussion of working in 'elite' London hospitals with 'internationally-renowned' specialists, spoke of how his decision to become a GP rather than continuing a surgical training pathway had been influenced by discussions with senior doctors.

> *"[The cardiologist] sat us all down and he said, 'You have to think very carefully about the sacrifices you're willing to make for your career, and you may want to be the best in the world at something, but actually think about what the impact on yourself and your family and all of that.' And he told us a story about how he missed all of his children's birthdays and essentially missed their years growing up, and he's having to make up for it now. So that was one thing that stuck with me." (P047, male, GP)*

This idea of sacrifice, and the kind of person who would be able to make that kind of sacrifice, was very powerfully discussed by those who had needed to make significant compromises because of their personal circumstances. Geographical inflexibility was discussed as a particular issue for mature students. Unlike the quotes above, which were reflecting on experiences before the participants had spouses and/or children, P024 highlighted how he had chosen his medical school and subsequent training placements

because he was already ‘settled’ with a family and a mortgage to pay. His narrative emphasised that there were significant assumptions made within the design of training pathways about who was a medical student, and what that meant for the organisation of work and life.

> *“They think that every newly-qualified doctor straight out of med school is going to be 23, without any commitments, and just be staying with their mum and dad or staying in rented accommodation, so therefore it doesn’t matter where they go. But, you know, when you’ve got your own house and stuff, and you’re either married or cohabiting, it’s not quite as straightforward as that.” (P024, male, GP)*

In this way, the demand for flexibility in terms of place/location was further complicated by doctors’ career stage often in unpredictable ways. This was emphasised in other narratives, showing how medical training pathways ‘unsettled’ doctors’ lives in unexpected ways.

> *“It’s really tough, being told to move around […]. So I didn’t like being unsettled and the possibility of having to move house all the time. And then the alternative to not moving house is a long commute. The rotations and the moving around, it’s not easy, it’s really difficult, and especially if you’ve got family as well, and you can’t just get up and go.” (P022, female, GP)*

This quote shows that for some doctors, the flexibility required to meet the needs of medical training was not available. The idea of not being able to ‘just get up and go’ as required was also discussed in other narratives. One international medical graduate, P020, also outlined the disruption to her life, emphasising how she had imagined a career in surgery which was derailed by becoming a single parent.

> *“The job was perfect, because if I got experience in surgery, I would then […] be able to apply for a surgical training number. But what happened, I fell pregnant, unplanned, […] so I had to make a decision to change my training plan, because it was going to be solo parenting really, and I needed to be able to give my child the time that they needed and everything. […] That for me, what determined what I would then do […] so that’s why I then went into GP training. (P020, female, GP trainee)*

This centres a framing of flexibility in terms of specialism/specialisation. Despite a longstanding commitment to surgery throughout her training, participant P020 saw the demands of the training as a barrier to progression. From these extracts, it is clear that there were discrepancies between expected pathways and experienced pathways. In exploring what their career had been like, it was obvious that doctors had internalised expectations about idealised medical careers, and they talked specifically about how they had not had an anticipated career trajectory, frequently with an associated sense of loss.

> *“This is where the route deviates right off of the usual path, I found out I was pregnant during that year.” (P001, female, SAS)*

> *“I’ve had to go through almost a phase of almost a mourning of my career, because the career that I thought I was going to have hasn’t really materialised, unfortunately. But it is what it is.” (P004, female, GP)*

This idea of ‘mourning a career’ was more strongly identifiable in women’s narratives, particularly around changes in choices of specialty, and emphasised that professional advancement was profoundly influenced by gender.

Professional advancement

Our second theme, professional advancement, demonstrates the impact of the lack of flexibility in terms of place/location, career stage and s specialism/specialisation for equality and diversity within the workforce. Participant 001, who had a non-training (SAS) role, spoke about the way that her expectations around her career changed once she had children. As a graduate of an 'elite' university with post-graduate training rotations in London in prestigious surgical specialties, she planned to go into anaesthetics or emergency medicine. Her reflections demonstrate the pressure of medical training, emphasising the personal sacrifices required for career advancement in the early stages of a career.

> *"I was knee-deep in my A&E rotation, having just come off of my upper GI surgery rotation, rotas were completely brutal, it was all very, very intense." (P001, female, SAS)*

These challenges had a huge impact on her engagement with clinical medicine, and she describes a feeling of 'burnout' that had started to impact on her decision to continue in specialty training. The expectations, and physicality of medicine, became unsustainable once pregnant.

> *"When I had my son, while I was pregnant with him, I was very ill, very sick, and that meant that I couldn't carry on doing the general surgical on-calls, because actually, before I found out I was pregnant, I fainted in theatre, or nearly did, and that's something that hadn't happened before." (P001, female, SAS)*

This participant was one of several who discussed managing the needs of family life alongside training. While managing family life was not the only challenge, it was one that came across strongly in multiple narratives. Coping techniques included working in a teaching role rather than direct patient contact, changing specialty (usually from a hospital specialty to general practice), going less-than-full-time, or taking a more precarious role (as a locum). All of these techniques had direct consequences for career progression, disrupting advancement. For example, working part-time meant working at a lower pay grade for longer. This was not possible for everyone, especially for women raising children as caregiver, breadwinner, or both.

> *"My daughter went into full-time nursery, every day because I continued to work full-time. I couldn't afford my life otherwise, if I went less-than-full-time. So I know a lot of people do go less-than-full-time, maybe because financially it's not a big deal, they have a partner who's working […]. But I didn't own anything, I was renting, and now I didn't have any other support. So I needed to continue to earn what I was earning to sustain our life." (P020, female, GP trainee)*

> *"I went on maternity leave and applied to general practice [training] because there was nothing else. It was eye-wateringly expensive to put a small person in nursery, and you can't work nights, you can't work weekends, with a baby, if you're on your own. It's just impossible. So yes, so I had to abandon- I had to give my career up." (P026, female, GP)*

These data extracts contrast with examples from other doctors' narratives, who were able to make personal sacrifices to take opportunities, including moving across the country to try different specialties or train with particular experts. They were able to be flexible when others were not.

"Relationships didn't really play a role, because I was young, free and single. You know, some people would have relationships which would change their whole plan, but I didn't really have that. And I also didn't have children – because some of my colleagues had children as junior doctors – and I think that was always really hard. So I didn't have any of those ties." (P010, male, consultant)

Attempts to progress through training pathways, or into more stable employment were disrupted by these structural determinants. Several female doctors expressed the challenges of balancing between an inflexible, demanding job and their family life.

"I thought to take up a trust-grade job, because I felt I couldn't continue doing locum; I needed some stability. I have a daughter. […] I got a good job in rehabilitation medicine in [place] Hospital. But I did that for only three months and I resigned, because the pay wasn't good enough. I had to work nine to five, Monday to Friday, which meant I had to pay for childcare, and it wasn't adding up […]. So I resigned again from the job and continued with my locums, which were paying better at the time." (P014, female, psychiatry trainee)

"[I]t was really, really challenging, actually, and very isolating, and I think a lot of my teammates didn't get it. I mean, they didn't ***have*** *to get it, and they were very much like 'You're here, you're one of us, you have to do the work the same as we do,' without knowing that actually, it was very much like being a single parent and having a toddler and no other family support." (P049, female, GP, emphasis in transcript)*

Taking locum roles to gain greater flexibility in work was one way that doctors tried to mitigate the demands of medicine on family life, but had further implications for their career progression, leaving them unable to gain the experiences and build skills necessary to advance to the next career stage. As will be discussed, this also had implications for service provision and planning. P049's comment here that her 'teammates didn't get it' also shows the implicit expectation that work would and should not be affected by family life. These internalised norms of practice made women feel unwelcome and unsupported. Within the interviews, there are several examples of experiences around part-time working showing how this perceived deviation from the norms of full-time working were tolerated rather than encouraged.

"I felt there was quite a lot of pressure because I was part-time. […] I raised the issue that I was routinely putting in an extra session out-of-hours, and then by accident – and I presume it was by accident – I was then copied into an email chain between my supervisors, who essentially said that, 'This is the reality, I'm about to log off and I will switching back on when I get home, what does she think it's going to be like when she's a consultant?'" (P018, female, consultant)

Medicine, particularly more competitive specialties, did not just require the capacity to work full-time, or out-of-hours. In reality, there were inferred expectations around what extra experiences were required for career advancement. This shows how social and more literal sense of capital were also required to progress within medical careers, and emphasised how taking part-time options, having other commitments including needing to pay for childcare presented further disadvantages.

"But actually, for most people, [you can't] pursue further learning because that's a financial cost to yourselves while you've not been able to stabilise your family. […] Whereas if money wasn't an issue […] then you can say, […] 'I can decide to take a year out and do a Master's in international health' or, 'I can go work in a poorer part of Africa,' just as examples, 'Because actually I don't have to worry about anything else.' And it's those experiences that push people up the ladder: it's those additional experiences that give you the next step up. So you're going to have a disparity because some people can achieve it and some people cannot." (P047, male, GP)

The recognition of this disparity between doctors with significant commitments outside medicine, and those who could take up opportunities for advancement, is key to understanding the impact of gender on medical careers, as the following section will show.

Career advancement at a cost

Finally, the third theme presented here demonstrates the high personal impact of trying to maintain a medical career as well as managing caring responsibilities. This has implications for workforce planning as several of those interviewed discussed 'burnout' and/or a desire to leave the profession entirely.

A number of the doctors interviewed had spouses or partners who were also doctors, or in another career that had deeply inflexible workloads (e.g. military service). These 'dual career' households were mentioned as a particular challenge; one recognised by those with and without experience of them. All clearly understood the need for support to manage the demanding expectations of a medical career.

"I think it must be hard for people – I'm not in this situation – but people who are married to other doctors who have a dual situation, as well, particularly in terms of childcare and being late for picking up children from nurseries and that sort of thing. But fortunately, my wife's able to take on most of that sort of role if it's needed, if I'm stuck at work." (P029, male, GP)

"I'm very aware that I didn't have commitments. I think it must be even more complicated and complex for people who've got commitments, whatever that may be: that really limits where people can apply and their opportunities, so that must be super-difficult as well." (P059, female, consultant)

Several doctors presented examples of managing dual careers; as an example, P049, a GP, shows the impact on women in particular. Her initial ambitions centred on her commitment to a specialty.

"The paediatric block [at medical school] I fell in love with, I knew I wanted to do paeds [paediatrics] even before I went to medical school, I was like, "I'm going to be a children's doctor," and that's again one of the things that I knew beforehand, so that rotation just confirmed that it was amazing. Obviously, I didn't do paediatrics in the end!" (P049, female, GP)

This doctor, who got married to another doctor shortly after medical school and became pregnant during foundation training, found it impossible to continue down this preferred training path while her doctor husband pursued his own ambitions to enter surgical training, a competitive speciality.

"Being married is what changed everything and changed the course of the specialities, because he wanted to do surgery. […] I got pregnant, and so that

again changed, doing an on-call based speciality, like paeds [paediatrics] is very on-call heavy, night shift-heavy, a ten-year training programme, as a consultant, you're still there doing nights and that just didn't feel feasible with a surgical husband and a baby." (P049, female, GP)

While this example presents the clearest example of the impact on career progression and choice of specialty, as this doctor left paediatric training to become a GP, further examples were present in career narratives.

"One time when my son was ill, and I think [military spouse] had been posted away, he was in [distant islands] or somewhere really unhelpful, and he was ill, I was told, 'Childcare isn't a valid reason for missing work.' I remember it vividly. It's quite a statement." (P007, female, GP)

Although pathways were often inflexible, there were examples within career stories about how doctors had managed to establish the 'well-founded reasons' referenced in the guidance around training that entitled them to take time out of training. However, these had to be established on a variety of grounds.

"So half-way through my GP training, I was allowed to take a six-month career break […] I told them that I'd become quite burnt out and quite stressed with the A&E job – which was true – and that I wanted some time to pursue some different interests, and I wanted to do some leadership qualifications – and I justified it, and I said, 'I want six months to do these things, and also I've got these family and life things that I want to do.' And they were fine with it and I was really pleased about that." (P004, female, GP)

In contrast, establishing 'well-founded reasons' to do training less-than-full-time was not always easy, and in practice this option was not always available to all.

"There was me and there was another colleague on the GP programme, and we both had children in the same month, we both wanted to go back part-time in this next medical post that we had, and we suggested, you know, 'Can we job-share?' and they were like, 'No, you can't. You've got to do full-time or you're not doing it.'" (P007, female, GP)

These examples demonstrate that while doctors, as individuals, make choices around what specialty they go into, and how to balance work and life, there are structural factors that constrain their choices and disrupt their career trajectories. Medical careers are, and continue to be, designed to expect flexibility and commitment from those undertaking training, with little scope for tolerating diverse population needs. This has implications for the equality and diversity of the workforce, as well as for their retention within healthcare services.

Discussion

This paper has outlined how medical career structures in the UK can be insensitive to gendered experiences of being a doctor. While there is a clearly defined and expected pathway designed to ensure service provision and individual career progression, this can be experienced as inflexible by those in training. Crucially, it is least flexible in terms of part-time working, shift patterns and tolerance for flexibility when flexibility is most needed by trainees. We position this in-/flexibility in terms of social capital, as those who are not able to be flexible for whatever reason are not able to progress. This inflexibility leads them to 'step off' the career pathway in a variety of ways; what an earlier generation recognised as 'falling off'

the career ladder towards consultant status. In terms of inclusion, the lack of available flexible professional routes impacts which specialties doctors choose, the rate at which they complete their training, and wider professional diversity. This has implications for equality and diversity within the workforce, as can be seen in the ongoing low representation of women in some specialties and in leadership positions.

We found that doctors did, frequently, try to make these inflexible structures work for them, and there was evidence that some succeeded in balancing their needs outside medicine with satisfying careers, but at times this came at great personal cost and compromise. We conclude that there needs to be wider recognition of these challenges that the structural organisation of medical careers as a whole bring in order to reform pathways and to move beyond the individualised solutions carved out by our participants. This represents our contribution to the literature for workforce planning, as the disruption experienced – personally and professionally – has implications for service provision. We only interviewed doctors who remained employed by the NHS, and it is likely that there are others who have similar experiences but have left the profession entirely. Future research could engage these former doctors to further understand why they were unable to continue.

Although the data presented here constitute a subset of the full study data, they still comprise a robust and rigorous qualitative sample of fifty in-depth interviews diverse in age, gender, ethnicity, and medical specialty. A particular strength of the study is the richness of the data gathered, focusing on careers as lived and experienced, and not explicitly on identifying barriers or concerns around gender. The depth of analytical work possible with such a dataset supports the rich and multi-layered conclusions of the paper. One weakness may be that the focus of the main study is not gender specifically. Arguably, we may have had richer and more meaningful conversations around the impact of gender on medical careers if this had been the proposed interview topic.

On the other hand, the sample of doctors who participated may have been different if our participant recruitment materials specified that the subject for discussion was gender. By taking a broader life-course approach to conducting these semi-structured interviews, doctors were able to surface the relevance (or otherwise) of gender on their experiences without a preconceived focus. The interview schedule prompted the interviewer to ask questions around family illnesses, relationships, having children and other life events. These prompts, which were developed as appropriate, allowed ample time for discussion of gendered factors in the interview. Although the interview schedule remained the same for all participants, both interviewers noted that discussion of parenting and family were often raised spontaneously as part of a work-life chronological narrative by women, while some male doctors interviewed required more prompting to discuss family life. This led us to recognise that for the women in our study, gender and careers were inseparable in a way that they frequently were not for men. While not a universal experience, there is evidence that gender amplified the inflexibility in medical careers and led to further disruption.

Although there are often concerns about the generalisability of qualitative findings, the relationship between our conclusions and other work in similar contexts suggests there are transferrable lessons. Our conclusions support and align with previous work that understands the gendered experiences of medicine and critically discusses the structural constraints that impact women in the workforce.[33] Quantitative research on job satisfaction also identifies how this impacts workforce attrition.[34] Previous attempts have been made to quantify understanding of which attributes men and women value within a training post, concluding that ‘controllable hours’ were valued by both.[35]

However, our analyses go further, in identifying how these gendered experiences translate into current priorities to improve the equality, diversity and inclusivity of the workforce as a whole. Framed within an educational context as ‘widening participation’ or ‘widening access’ to medicine, these initiatives aim to ensure that the medical workforce is more representative of the population as a whole.[36] Increasing diversity within medicine is not just about the profession, but is seen to have impacts on patient experience and potentially health outcomes.[37] Our findings have shown that the medical career pathway is, and has been historically, designed for someone with particular access to flexibility as a form of social capital.

Our paper focused specifically on gender, but our analysis is sensitive to the ways that other factors such as race and socio-economic status further compounded the inequalities experienced. Attending to the importance of flexibility in medical careers allows a sensitivity to examine the ways in which the varying degrees of flexibility people could or could not afford had serious impact on their career and life in general. While, as we demonstrated, there is no doubt that gender was one of the most important defining characteristics in flexibility, framing challenges around medical workforce as flexibility issue allows us to challenge the existing somewhat limited framing of the work-life balance agenda as female doctors' issues[38,39] and/or parenting issues.[40–42]

Further research should ensure it plays attention to these intersectional issues further. In particular, using intersectionality as a theoretical lens will enable consideration of the accumulation of these factors may be experienced in relation to dominant power structures, with a specific focus on acknowledging the importance of social dynamics.[16] This intersectional approach has previously been acknowledged as vital to understanding the vocational dynamics of medicine which shape doctors’ experiences, and recognises how challenges are faced.[43]

Our findings on social capital in relation to gender also align with those of Liang et al., who examined surgical training in Australia in a small scale study, concluding that to improve retention of female surgical trainees there is a need to move away from “single-factor interventions and work in more complex, multifactorial, and contextual ways to improve institutional environments and support women to stay in the surgical profession.”[27] By taking a critical look at gender as an exemplar of how difference from expected norms can disrupt both life and career, we start to position an analysis that speaks to how these differences impact on progression within the career trajectory, and how multi-factorial solutions are required. Indeed, previous examinations of the racialised nature of medicine, specifically the impact of being an international medical graduate, have shaped a generation of South Asian medical graduates and their collective career progression.[44,45] More recently, the GMC’s focus on Fairer Training Cultures has recognised the impact that race-related issues and racism has on training and career progression and choice of specialty.[46] Future research should attend to these intersections.

Conclusion

Although there are expected trajectories in medicine which tightly align with the needs of the healthcare system and patients, the experience of these trajectories in practice is very different than those anticipated by policy makers. Without the flexibility required for trainee doctors to manage family life, the unintended consequences range from burnout to leaving the profession entirely. The lack of accommodation of individual need is in stark contrast to NHS rhetoric for patients, around personalised care and continuity. While there is increasing recognition of a requirement for flexibility, as evidenced in recent changes to medical training programmes, this represents small steps in a slow programme of improvement, and does

not address the wider need for reform. Until medical careers have a greater tolerance for diversity within them, they will not meet the needs of diverse doctors.

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