Title: British doctors' work-life balance and home-life satisfaction: a cross-sectional study

Authors: Dr. Abdullah Aamir (MBChB, BSc, PGCert)*[1], Dr. Swati Parida (MBChB, BSc)*[1], Dr Jahangir Alom (BMBS, BMedSc)[1], Dr. Tania A. Rufai (MBBS)[2], Dr. Sohaib R. Rufai (BMBS, BMedSc, MRes)[1,3]

*Co-first author

Affiliations:

1. The University of Leicester Ulverscroft Eye Unit, Leicester Royal Infirmary, Robert Kilpatrick Clinical Sciences Building, PO Box 65, Leicester LE2 7LX, United Kingdom.
2. Memorial Medical Centre, Sittingbourne, Kent, ME10 4XX, United Kingdom.
3. Clinical and Academic Department of Ophthalmology, Great Ormond Street Hospital NHS Foundation Trust, London WC1N 3JH, United Kingdom.

Corresponding author:

Dr Sohaib R. Rufai

Address: The University of Leicester Ulverscroft Eye Unit, Leicester Royal Infirmary, Robert Kilpatrick Clinical Sciences Building, PO Box 65, Leicester LE2 7LX, United Kingdom

E-mail: Sohaib.Rufai@nhs.net

Telephone: +44 (0)116 2523268

Fax: +44 (0)116 2231996

Financial disclosures: The authors have no proprietary or commercial interest in any materials discussed in this article.

a. Contributorship Statement

Abdullah Aamir: Concept, data collection, data analysis, manuscript writing.

Swati Parida: Concept, data collection, data analysis, manuscript writing, submitted study.

Jahangir Alom: Data collection, critical revision.

Tania A Rufai: Data collection, data analysis, manuscript writing.

Sohaib R Rufai: Concept, data collection, data analysis, critical revision, supervision, guarantor.

b. funding: SRR is funded by a National Institute for Health Research (NIHR) Doctoral Fellowship. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

c. competing interests – No conflicting relationship exists for any author.

d. acknowledgements – The authors thank all respondents for supporting this study by completing the survey.

Main Messages:

- Work-life balance and home-life satisfaction were generally suboptimal across all specialities and all regions throughout the UK.
- Most respondents reported that their work negatively impacted their relationships and hobbies.
- A substantial proportion of respondents reported delaying major life events due to their work.
- Female doctors were most likely to enter less than full time training or leave their speciality.
- Unsocial working, rota issues and training issues were the three most common themes contributing to poor work-life balance and home-life satisfaction.

Three research questions that have emerged as a result of this work:

1. Can reducing the frequency of relocation across large deaneries, constructing more flexible rotas and making less than full time training more accessible, improve UK doctors' work-life balance and home-life satisfaction?
2. Can the above reduce the likelihood of doctors delaying major life events?
3. Can the above improve retention of doctors in their respective specialities?

What is already known on the subject:

Maintaining a satisfactory work-life balance is increasingly difficult due to the increasing pressures faced by the medical profession in the UK. Nearly half of British doctors in training report working beyond their contracted hours on at least a weekly basis. This as well as chronic fatigue can be detrimental for personal hobbies and interactions with friends and family. Postgraduate exam preparation and attaining curriculum-based competencies, unsocial shift pattern working and regular workplace relocation further contribute to the above.

Many doctors feel compelled to put their personal life "on hold" until their training is completed. As a consequence, many doctors transfer into specialties deemed as having better work-life balance, or switching to less than full time training, or take time out of training, while some leave the medical profession entirely.

Word count: 2950

Abstract

Purpose: To assess British doctors' work-life balance, home-life satisfaction and associated barriers.

Study design: We designed an online survey using Google forms and distributed this via a closed social media group with 7,031 members, exclusively run for British doctors. No identifiable data were collected and all respondents provided consent for their responses to be used anonymously. The questions covered demographic data followed by exploration of work-life balance and home-life satisfaction across a broad range of domains, including barriers thereto. Thematic analysis was performed for free-text responses.

Results: 417 doctors completed the survey (response rate: 6% – typical for online surveys). Only 26% reported a satisfactory work-life balance; 70% of all respondents reported their work negatively affected their relationships; 87% reported their work negatively affected their hobbies. A significant proportion of respondents reported delaying major life events due to their working patterns; 52% delaying buying a home, 40% delaying marriage and 64% delaying having children. Female doctors were most likely to enter LTFT or leave their speciality. Thematic analysis revealed seven key themes from free-text responses: unsocial working, rota issues, training issues, less than full time working, location, leave and childcare

Conclusions: This study highlights the barriers to work-life balance and home-life satisfaction amongst British doctors, including strains on relationships and hobbies, leading to many doctors delaying certain milestones or opting to leave their training position altogether. It is imperative to address these issues to improve the well-being of British doctors and improve the retention of the current workforce.

Introduction

In their 2019 report titled 'The state of medical education and practice in the UK', the General Medical Council (GMC) found that doctors are still at significant risk of burnout.[1] Home-life satisfaction is a pre-requisite to sustained morale in doctors.[2] However, maintaining a satisfactory home-life and work-life balance is increasingly difficult due to the increasing pressures faced by the medical profession.[3]

Long working hours, unsocial shift pattern working and regular workplace relocation can profoundly disrupt personal life, place strain on relationships and may lead to separation from friends and family. The 2019 GMC National Training Survey found that more than 45% of doctors in training worked beyond their contracted hours on at least a weekly basis.[4] This can result in a lack of time for personal hobbies and interactions with friends and family. Chronic fatigue may act as a source of tension in doctors' personal relationships.[5] Furthermore, trainees often sacrifice personal time for postgraduate exam preparation and attaining curriculum-based competencies, further reducing time available for family, socialising or maintaining hobbies. Poor work-life balance can be detrimental to relationships, particularly for dual-doctor couples who may struggle to achieve meaningful time together compared with other couples.[6] It is unsurprising that many doctors prioritise work over home-life to cope with job pressures, with some putting personal life "on hold" until their training is completed, delaying major life events such as buying a home or starting a family. As a consequence, doctors may opt to transfer into specialties deemed as having better work-life balance, or switching to less than full time training.[7] There is an increasing trend for junior doctors to take time out of training, while some leave the medical profession altogether.[8,9] These scenarios may have a detrimental effect on workforce retention and planning.[10]

The primary aim of this study was to investigate how British doctors' work affects their home-life satisfaction and work-life balance. The secondary aim was to investigate potential barriers to having a satisfactory home-life and work-life balance.

Methods

Survey design

We designed an online survey using Google Forms, available at https://www.google.co.uk/forms/ (Google, Mountain View, California, USA). The Google Forms tool enabled the construction of a variety of question formats, including nominal and ordinal demographic questions, five-point Likert scale questions, yes/no questions and free text (open) responses.[11,12] The full survey is included in Appendix 1. All survey questions were included within a single webpage. Dropdown boxes were used for long lists of seven or more options to improve usability of the survey webpage, otherwise check boxes were used, whereby all options were immediately visible on the webpage.[11] Two textboxes were used to collect free text (open) responses to the following questions, without word limit restrictions: i) "What changes could be made in the workplace or training programme to make your work-life balance easier?"; ii) "Do you have any final comments on the subjects covered in this survey?" The first question was intentionally focused, while the second was left open, in order to capture rich and diverse data in the responses.

Data collection

Surveys were distributed through a closed social media group on Facebook named "The Consulting Room" exclusively for UK doctors, run by Doctor's Association UK.[13] This Facebook group's 'about' page describes it as follows: "A forum for UK doctors to discuss and debate issues that doctors face in the UK today and also to support each other." Users are required to provide a UK GMC number prior to joining this group. At the time of our survey, this Facebook group had 7,031 members.

Inclusion criteria was defined as: (1) registered medical professional; (2) practicing in the United Kingdom (UK). Respondents were not able to alter their responses after the form had been completed and submitted. The survey was made available for 4 weeks, running from 3rd October to 7th November 2019. No identifiable data were collected. All respondents provided consent for their responses to be used anonymously.

Data analysis

Data from the survey were exported into a Microsoft Excel database. Respondent demographics were reported descriptively. Bar charts were used to report data pertaining to home-life satisfaction and work-life balance, as follows: Likert responses to the statement: "my training programme/job plan is associated with a satisfactory work-life balance"; responses regarding delaying the following milestones: buying a house, marriage and having children; comparison of responses by sex,

relationship status and relationship partner. Data regarding other responses were reported descriptively.

Thematic analysis was performed by the penultimate author using the two free-text responses, as per guidance from Guest and colleagues[14]. The senior author supervised and reviewed the thematic analysis. Familiarisation of the data was achieved by reading and re-reading the responses before open coding was performed. The codes were then combined or contrasted to identify relevant themes. This was an inductive and cyclical process, with extra care taken not to overlay professional judgments onto those of the respondents.[15] In any cases of coding overlap, the majority of the response content dictated its thematic classification; final judgment was provided by the senior author where necessary. Finally, the themes were reviewed to ensure that they encompassed all codes derived from the data.

Results

Demographics

A total of 417 responses were received (response rate: 6%), representing a broad variety of demographic characteristics (Table 1). This was a typical response rate for a survey distributed online.[16] There was greater female (291/417; 70%) than male representation. There was a wide variety of specialties represented, with most respondents in a medical speciality (n=95; 23%), followed by general practice (n=71; 17%) and a surgical speciality (n=63; 15%). Most respondents (n=325; 78%) were either in a relationship or married. Of those in a relationship, 123 (40%) reported their partner was a doctor, with a further 33 (8%) reporting that their partner was a non-physician healthcare professional. No difference was observed in the proportion of males (n=37; 29%) and females (n=86; 29%) who reported being in a dual-doctor relationship.

Demographic chacteristics	n (%)
Sex	
Female	291 (70)
Male	126 (30
Age group	
18-25	38 (9)
26-30	166 (40)
31-35	104 (25)
36-40	41 (10)
41-45	36 (9)
45 and above	32 (7)
Grade	
Foundation Trainee	80 (19)
Core Trainee	70 (17)
Specialty Trainee	168 (40)
GP	33 (8)
SAS doctors	20 (5)
Consultant	46 (11)
Region	
England: North	91 (22)
England: Midlands and East	101 (24)
England: London	82 (20)
England: South	89 (21)
Northern Ireland	6 (2)
Scotland	30 (7)
Wales	18 (4)
Relationship status	
Single	92 (22)
In a relationship	155 (37)
Married	170 (41)

Partner's profession	
Doctor in training	82 (20)
Doctor (GP/SAS/Consultant)	41 (10)
Other healthcare professional	33 (8)
Other	261 (62)

Table 1: Demographic characteristics of all respondents. *Key: GP = general practitioner; SAS doctors = staff grade, associate specialist and specialty doctors*

Overall work-life balance satisfaction

The majority of respondents (n=234; 56%) disagreed or strongly disagreed that their training programme was associated with a satisfactory work-life balance (Figure 1). A further 75 (18%) respondents neither agreed nor disagreed that their training programme was associated with a satisfactory work-life balance. Only 108 (26%) of respondents agreed or strongly agreed they had a satisfactory work-life balance.

Barriers to achieving work-life balance and home-life satisfaction

70% (n=293) of respondents agreed or strongly agreed that their working pattern caused difficulty in personal relationships. 87% (n=365) reported that their hobbies were negatively affected due to their working pattern. With regards to the effect on major life-events, 52% (n=203) reported delaying buying a home (Figure 2a), 39% (n= 128) reported delaying marriage (Figure 2b) and 64% (n=235) reported delaying having children (Figure 2c), due to their working pattern.

Doctors in emergency medicine had the strongest agreement amongst all specialities that their working pattern negatively affected their personal relationships (n=27; 87%) and hobbies (n=30; 97%). Additionally, they reported the lowest (n= 3; 10%) level of satisfaction with work-life balance, followed by those in a surgical specialty (n= 8; 11%). Highest level of satisfaction with work-life balance was reported amongst doctors in general practice (GP) (n=34; 48%). All (n=6) respondents from Northern Ireland reported they were not satisfied with work life balance. There was little variation in satisfaction with work-life balance reported between doctors from remaining regions, with slightly higher satisfaction reported in Scotland (n=9; 30%) compared to the South of England (n=23; 26%).

Overall, 66% (n=256) of respondents reported they were able to work in their first-choice location. Those in a surgical speciality were least likely to work in their first-choice location (n=39; 49%) and 30% (n=22) reported trying to change location to make home-life easier. Surgical trainees were also most likely to consider changing specialities (n=48, 61%) compared with the average of 46% (n=184). Of those who reported they had left a speciality to make home-life easier (n=53, 15%), leavers from a medical specialty were the most common (n=15, 28%).

Comparison of responses by sex, relationship status and relationship partner

Female doctors were found to be three times as likely to change speciality (31%, n=73) and three times more likely to go part-time (38%, n=37) than male doctors, 9% (n=9) and 13% (n=14) respectively. 80% (n=220) of female doctors reported considering working part time due to poor work life balance. Female doctors were also more likely to delay having children (67%, n=172) than male doctors (58%, n=63) and delay buying a house. More female doctors agreed that that their relationship influenced their choice of speciality and training location than male doctors. However, there was no significant difference in leaving training positions or satisfactory work life balance between the two sexes. Figure 3a summarises the above key findings from comparison of sexes of respondents.

A summary of the relationship status breakdown of all respondents is illustrated in Table 1. Figure 3b demonstrates the differences between single doctors and those in relationships and marriage. Figure 3c illustrates how work-life is affected by different relationship types. Single doctors reported higher dissatisfaction with work life balance (67%, n=60) than those in relationships (53%, n=173) (Figure 3b). Single doctors were nearly twice as likely to leave a training position (24%, n=16) compared with those married or in a relationship (13%, n=42). Those in a dual doctor relationship were less likely from all the groups to leave a training position (16%, n=16). More doctors in relationships had a commute greater than 1 hour (17%, n=55) compared with single doctors (13%, n=12).

Thematic analysis

There were a total of 253 responses to the first free-text question, “What changes could be made in the workplace or training programme to make your work-life balance easier?” There were 94 responses to the second free-text question, “Do you have any final comments on the subjects covered in this survey?” Thematic analysis was performed for all free-text data. Table 2 summarises the major themes arising from the responses, including frequency and example responses. Many responses were supplemented with anecdotal evidence. Supplementary Table 1 includes a breakdown of keywords used per theme. Supplementary Figure 1 is a word cloud to help visualise the most commonly used words in the free-text responses. Seven major themes were identified:

Theme	**Frequency**	**Percentage (%) representation within themes**	**Sample responses**

Unsocial working	126	27	"Before starting my current speciality, I found work life balance very difficult. I was on rotations far from home doing **unsocial** shift work, I couldn't keep up any hobby, I would drag myself grudgingly back home at weekends because friends and family wanted to see me but it felt like a chore. It has severely impacted my ability to have relationships. I believe that a significant part of being single at 35 has been because of working as a doctor." "A less brutal rota. 1 in 2 weekends, along with 75% **antisocial** hours is very difficult. Constantly tired, and have become unwell with the fatigue."
Rota issues	108	23	"Shorter commutes. Flexible **rotas** to allow me to see my husband at weekends (we are both on rolling **rotas**, so if our on call weekends don't match up each rotation we don't see each other very often at the weekend)" "A reduction in the irregularity of shifts. An 8 week **rota** with every week different, sometimes 3 different times of shift per week. Only 5 8-5pm weekdays in 8 weeks. Changes to training programme: smaller deaneries, some are so large you would have over an hour commute to every hospital or have to move every year - how do you move every year with children?"
Training issues	63	14	"Being able to work closer to home, having time during work hours to complete additional **training** needs (wbas, logbook etc) and write papers so this doesn't need to be done during my small amount of time at home." "Increased time for personal life and out of work **training**"
Less than full time (LTFT) working	58	12	"I think at 55-70 hours a week (as we work in our hospital as foundation trainees), it feels near impossible to achieve a good work life balance - simply because you have so few waking hours away from work to play with. Coupled with being married to another trainee, this makes time together very

			infrequent. I don't see a solution for us long term other than both going **LTFT**." "Easier application process for **LTFT** training and better access (I.e. make it easier for any trainee to work **LTFT** regardless of their home circumstances e.g children, ill health)"
Location	44	9	"Small geographical **location** to rotate around. Unable to buy a house due to length of commutes to some hospitals." "My wife got a job in another **city** and due to the restrictive transfer rules for trainees we are having to live apart. Despite deciding recently that we are not happy with the current situation the soonest I could now transfer is August (10 months). We previously delayed our wedding because I was placed on the Isle of Man during core training."
Leave	38	8	"Ability to plan your life more than 6 months in advance. Ability to take at least 2 weeks consecutive **leave** with all associated weekends at least once a year and a week with associated weekends at another point in the year with some flexibility as to when" Being able to request and have guaranteed annual **leave** during training before post starts.
Childcare	29	6	"Smaller deanery area to cover. I have small **children** & have had to live away for weeks at a time for three years of training." "Earlier access to Rotas, so life plans can be made including **childcare** arrangements."

Table 2: Thematic analysis with examples. *Seven major themes have been highlighted from free-text responses: unsocial working, rota issues, training issues, less than full time (LTFT) working, location, leave and childcare. Frequency of responses and percentage representation according to theme is displayed. The sample responses feature terms coded to the applicable themes in bold text*.

Unsocial working

Responses relating to unsocial working accounted for 27% of thematic representation. Respondents described unsocial shift work as a barrier to achieving better work-life balance, e.g. “unsocial shift work… has severely impacting my ability to have relationships”; “…75% antisocial hours is very difficult. Constantly tired, and have become unwell with the fatigue”.

Rota issues

Rota issues accounted for 23% of thematic representation. Respondents described the challenges of fixed rotas, and irregular rolling rotas that don’t match up with their partner’s schedule (particularly where they are also a doctor). Respondents suggested “flexible rotas” and “a reduction in the irregularity of shifts” to help improve work-life balance.

Training issues

Training issues accounted for 14% of thematic representation. Respondents frequently raised the issue of not having enough time to fulfil training requirements within their allocated work schedule, e.g. “having time during work houors to complete additional training needs… so this doesn’t need to be done during my small amount of time at home.”

Less-than-full-time (LTFT) working

Issues surrounding LTFT working accounted for 12% of thematic representation. Respondents suggested that the access to LTFT working and the application process could be made easier. Respondents in dual-doctor relationships reported LTFT as a solution, e.g. “it feels near impossible to achieve a good work-life balance – simply because you have so few waking hours away from work to play with… I don’t see a solution for us long term other than both going LTFT.”

Location

Issues surrounding location accounted for 9% of thematic representation. Respondents reported that a smaller geographical location to rotate around would be helpful, as they are “unable to buy a house due to length of commutes to some hospitals.” Moreover, other responses pertained to the difficulties surrounding interdeneary transfer, e.g. “My wife got a job in another city and due to the

restrictive transfer rules we are having to live apart… The soonest I could now transfer is August (10 months)."

Leave

Issues surrounding leave accounted for 8% of thematic representation. Respondents reported difficulty in getting leave requests approved. Respondents suggested relaxation of strict leave restrictions would help improve their work-life balance, e.g. "(The) ability to plan your life more than 6 months in advance... (and) ability to take at least 2 weeks consecutive leave", "being able to request and have guaranteed annual leave during training before post starts."

Childcare

Issues surrounding children accounted for 6% of thematic representation. Respondents stated that childcare arrangements could be easier with a "smaller deanery area to cover" and "earlier access to rotas".

Discussion

Summary of key findings

Our study found that most doctors felt their training programme/job plan was not associated with a satisfactory work-life balance. The majority of doctors also reported that their personal relationships have been negatively affected due to their working pattern. To whom it was applicable, the majority have reported delaying milestones in their personal lives such as buying a home, marriage or having children. Female doctors faced unique challenges and were the most likely to enter LTFT or leave their speciality in favour of home-life responsibilities. Thematic analysis identified seven key themes relating to work-life balance: unsocial working, rota issues, training issues, less than full time working, location, leave and childcare.

In context

To the best of our knowledge, this is the first study assessing how the stresses of working life affect the personal lives and relationships of British doctors. Postgraduate medical training in the UK has been subject to various restructuring processes, with the most recent significant change taking place in 2005, known as modernising medical careers (MMC).[17] MMC removed a previous system of locally administered training positions, centralising the application process for doctors to enter specialty training in a bid to create a fair system and a seamless pathway from graduation medical school to becoming a consultant. The reform has not come without criticism.[18,19] In doing so, the system has fostered an increasingly competitive environment for sought after posts and meant that doctors often take up training positions in locations that may not be ideal, in order to continue along the training pathway in their desired specialty. Naturally, this may result in a profound effect upon their personal relationships and lives at home. Indeed, qualitative research has reported that trainees have refused training posts due to unfavourable locations.[8] A recent survey which followed doctors one and five years after graduation found that domestic circumstances increased in importance more than any other factor influencing their choice of speciality training.[20] Additionally, changes to the way junior doctors are reimbursed[21] has created further animosity amongst doctors, with many choosing to take time out of defined training pathways, many of them citing a lack of work-life balance.[8,22,23]

In our study, respondents reported significantly low levels of satisfaction with work-life balance. Overall, only 26% (n=108) of doctors agreed or strongly agreed that their working pattern was associated with a satisfactory work-life balance.

Humphries and colleagues[24] recently conducted a study of Irish hospital doctors, performing qualitative analysis of free-text questions relating to working conditions (n = 469) and work–life balance (n = 314); they also found that hospital doctors of all levels of seniority struggled to achieve satisfactory work life balance. Unlike our study, they found a slight overrepresentation of male doctors responding to their survey. They found that 73% of respondents agreed or strongly agreed with the statement, 'I often feel the strain of attempting to balance my responsibilities at home and at work', similar to our findings. They identified the following themes from the free-text reponses: i) impact of imbalance on own wellbeing; ii) impact of imbalance on others; iii) seeking better balance. Although the themes arising from our study were organised and termed differently, both studies had very similar findings overall.

Numerous studies based in the USA[25-27] have shown that female doctors are firstly more likely to make professional adjustments accommodating for greater household responsibility and secondly that a contributor to this effect may be that spouses of female doctors are on average higher earners and work longer hours outside the home. Our study also found discrepancies between the two sexes. Despite both sexes reporting similar levels of satisfaction of work-life balance, female doctors were more likely to change speciality and change into LTFT. Female doctors also reported being more influenced by their relationships as to choice of speciality and location compared to male doctors and are more likely to delay buying a home and having children.

Our study has confirmed that UK doctors in dual doctor relationships are more likely to delay marriage, buying a home or starting a family, compared with those in relationships with other healthcare professionals and non-healthcare professionals. This is likely due to both partners being under stress of long working hours, usually prioritising postgraduate exam preparation and achieving training competencies in personal time and consequently postponing life events until these are completed. However, dual doctor couples reported higher work-life balance satisfaction than any other relationship group and were also the least likely to leave a training position, possibly where partners are understanding towards each other and thus supporting each other in evident work-life balance struggles and with the demands of training.[28-30] Sobecks and colleagues found that those in dual doctor relationships usually valued both partner's careers as equally important, which may contribute to this effect.[31]

Limitations

The inherent nature of a survey predisposes to respondents being a self-selecting group. Whilst our survey represented a larger proportion of females than males, this may be a reflection of the recent increase of female doctors in the workforce. To account for this, sex comparison analysis is presented in percentage format rather than absolute numbers. The relatively limited sample size has been reflected in the disproportionate distribution of respondents from varying grades and specialities and therefore our results may not be generalisable to those specialities and grades with a low response rate. Sensitive data regarding race, sexual orientation and gender identity could not be included in this study and fell outside the study remit - these require further research with appropriate ethical approval and expertise. Whilst home-ownership, marriage and having children do not necessarily represent life milestones sought by all doctors, these were selected as relatively straightforward and efficient measures. Doctors not wishing to buy a home, get married or have children had the option to respond that these had not been 'delayed' in their case. Finally, the publication of this paper has been delayed due to the COVID-19 pandemic – indeed, further work to explore the impact of the pandemic on work-life balance and home-life satisfaction would be of great value.

Conclusion

In a workplace environment where there is ever-increasing demand on both the system and key employees within it, it is imperative that steps are taken to ensure the wellbeing of staff. Our study highlights the lack of work-life balance amongst doctors in the UK and explores some of the barriers reported by doctors which may be contributing to this – in particular, strain on relationships at home and having to delay certain milestones. We further highlight the burden on female doctors in comparison to their male colleagues. In a sector where the number of female doctors is continuing to increase, it is important that employers seek to recognise and alleviate work-based pressures placed on individuals, particularly female doctors, in order to maintain recruitment and retention of staff.

Figure Captions

Figure 1: Respondents' Likert scale responses to the statement: "my training programme/job plan is associated with a satisfactory work-life balance". Strongly disagree (n=88); disagree (n=146); neutral (n=75); agree (n=83); strongly agree (n=25); total (n=417).

Figure 2: Composite charts showing responses to questions regarding delaying milestones in personal life. 2A: delaying buying a house. 2B: delaying marriage. 2C: delaying having children.

Figure 3. Comparison of responses by sex, relationship status and relationship partner. 3A: Bar chart to show percentage of respondents that agreed or strongly agreed with work-life balance parameters, compared by sex. 3B: Bar chart to show percentage of single respondents and those are married/in a relationship that agreed or strongly agreed with work-life balance parameter. 3C: Bar chart to show percentage of respondents that agreed or strongly agreed with work-life balance parameters, compared by relationship type. LTFT = less than full time working.

References:

1. General Medical Council. The state of medical education and practice in the UK: 2019. Available at: https://www.gmc-uk.org/-/media/documents/somep-2019---full-report_pdf-81131156.pdf. Accessed 18 May 2021.

2. Rich A, Viney R, Needleman S, Griffin A, Woolf K. "You can't be a person and a doctor": The work-life balance of doctors in training - A qualitative study. BMJ Open. 2016 Dec 1;6(12):e013897.

3. Rimmer A. Staff stress levels reflect rising pressure on NHS, says NHS leaders. Vol. 360, BMJ (Clinical research ed.). NLM (Medline); 2018. p. k1074.

4. General Medical Council. National Training Surveys 2019: Initial findings report. 2019.

5. Dyrbye LN, West CP, Satele D, Sloan JA, Shanafelt TD. Work/home conflict and burnout among academic internal medicine physicians. Arch Intern Med. 2011 Jul 11;171(13):1207–9.

6. Shanafelt TD, Boone SL, Dyrbye LN, Oreskovich MR, Tan L, West CP, et al. The medical marriage: A national survey of the spouses/partners of US physicians. In: Mayo Clinic Proceedings. Elsevier Ltd; 2013. p. 216–25.

7. Dorsey ER, Jarjoura D, Rutecki GW. Influence of Controllable Lifestyle on Recent Trends in Specialty Choice by US Medical Students. J Am Med Assoc. 2003 Sep 3;290(9):1173–8.

8. Rizan C, Montgomery J, Ramage C, Welch J, Dewhurst G. Why are UK junior doctors taking time out of training and what are their experiences? A qualitative study. J R Soc Med. 2019 May 1;112(5):192–9.

9. General Medical Council. The state of medical education and practice in the UK. The workforce report. Manchester; 2019.

10. Iacobucci G. NHS workforce planning is in disarray, MPs warn. Vol. 353, BMJ (Clinical research ed.). British Medical Journal Publishing Group; 2016. p. i2664.

11. Minto C, Vriz GB, Martinato M, Gregori D. Electronic Questionnaires Design and Implementation. Open Nurs J. 2017;11:157-202.

12. Likert R. A Technique for the Measurement of Attitudes. Archives of Psychology. 1932; 140: 1–55.

13. 'The Consulting Room' by DAUK. About this group (Facebook). Available at: https://www.facebook.com/groups/326788934801330/about. Accessed 3 October 2019.

14. Guest G, MacQueen KM, Namey EE. Introduction to applied thematic analysis. In: Applied Thematic Analysis. Thousand Oaks, CA: Sage; 2012. p. 3–20.

15. Chapman AL, Hadfield M, Chapman CJ. Qualitative research in healthcare: an introduction to grounded theory using thematic analysis. J R Coll Physicians Edinb. 2015;45(3):201-5.

16. Delighted. What is a good survey response rate for online customer surveys? 2021. Available at: https://delighted.com/blog/average-survey-response-rate. Accessed 19 May 2021

17. Department of Health. Modernising medical careers. The next steps: the future shape of foundation, specialist and general practice training programmes. London; 2004.

18. Madden GBP, Madden AP. Has Modernising Medical Careers lost its way? BMJ. 2007 Sep 1;335(7617):426–8.

19. Fuller G, Simpson IA. Modernising Medical Careers to Shape of Training -how soon we forget. BMJ. 2014 Apr 30;348:g2865.

20. Lambert TW, Smith F, Goldacre MJ. Changes in factors influencing doctors' career choices between one and five years after graduation: questionnaire surveys of UK doctors. J R Soc Med. 2016 Nov 1;109(11):416–25.

21. Rimmer A. Junior doctor contract: dispute with government ends after juniors accept changes. BMJ. 2019 Jun 27;365:l4447.

22. Spooner S, Gibson J, Rigby D, Sutton M, Pearson E, Checkland K. Stick or twist? Career decision-making during contractual uncertainty for NHS junior doctors. BMJ Open. 2017 Jan 1;7(1).

23. General Medical Council. Training environments 2017: key findings from the national training surveys. Manchester; 2017.

24. Humphries N, McDermott AM, Creese J, Matthews A, Conway E, Byrne J. Hospital doctors in Ireland and the struggle for work–life balance. European Journal of Public Health. Volume 30, Issue Supplement_4, September 2020, Pages iv32–iv35. https://doi.org/10.1093/eurpub/ckaa130

25. Jolly S, Griffith KA, DeCastro R, Stewart A, Ubel P, Jagsi R. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician-researchers. Ann Intern Med. 2014;160:344–53.

26. Tesch B, Osborne J, Simpson D, Murray S, Spiro J. Women physicians in dual-physician relationships compared with those in other dual-career relationships. Acad Med. 1992;67(8):542–2.

27. Ly D, Seabury S, Jena A. Characteristics of U.S. Physician Marriages, 2000-2015: An Analysis of Data From a U.S. Census Survey. Ann Intern Med. 2018;168(5):375–6.

28. Johnson C, Johnson B, Liese B. Dual-doctor marriages: the British experience. J Am Med Womens Assoc. 1991;46(5):155–9; 163.

29. Gjerberg E. Women doctors in Norway: the challenging balance between career and family life. Soc Sci Med. 2003;57(7):1327–41.

30. Gjerberg E. Leger i par [Dual-doctor marriages]. Tidsskr den Nor laegeforening Tidsskr Prakt Med ny raekke. 2003;123(16):2300–3.

31. Sobecks N, Justice A, Hinze S, Chirayath H, Lasek R, Chren M, et al. When doctors marry doctors: a survey exploring the professional and family lives of young physicians. Ann Intern Med. 1999;130(4 pt 1):312–9.