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RESEARCH ARTICLE

Drexit: Understanding why junior doctors leave their training programs to train overseas: An observational study of UK physicians

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Abstract

Introduction: Drexit ("Doctor-Exit") is the exponentially growing trend for junior doctors in the UK to walk away from their jobs in the National Health Service (NHS). Our objective was to identify the reasons why junior doctors in the UK leave their NHS training programs to train overseas.

Materials and Methods: A simultaneous and convergent mixed-methods study was performed to analyze both an online survey and semi-structured interviews from junior doctors who had left the NHS. Social media, online professional media, and networks of junior doctors were used to recruit doctors. All were UK medical school graduates who had left the NHS within the last 15 years (2003-2018).

Results: 96.1% (149/155) of respondents reported not being offered an exit interview on leaving the NHS. 94.8% (147/155) of respondents did not regret quitting the NHS. Participants were more satisfied with their pay and work life balance in their overseas posts when compared to training in the NHS ($P < 0.05$). Burnout was variably defined and was prominent in doctors who left 53.8% (113/210) but was reversed when they practiced medicine overseas in 89.2% (74/83) of cases. Qualitative data identified four key themes which were categorized into push factors, which were lack of interest in retention and bleak outlook; and pull factors, which were financial vs social capital and things are different overseas.

Conclusion: Listening to the frontline junior doctors' voices lend insights into a better understanding of the push and pull factors that appear to be exacerbating the exodus of junior doctors from the NHS. Our results indicate that exit interviews should be performed routinely. There needs to be a shift to focus on the training of doctors rather than service provision, with efforts to support, appreciate, and value junior doctors. Further exploration is needed to identify what is happening in training programs overseas to improve retention within the NHS. Furthermore, identifying issues perceived by junior doctors in the UK in the context of workforce planning may be applicable to healthcare systems across the globe.

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KEYWORDS
burnout, Drexit, job satisfaction, junior doctors, retention, training, value, workforce

1 | INTRODUCTION

Worryingly, junior doctors in the UK are increasingly leaving the NHS before their training is complete.[1] In 2011, when preliminary career-destination surveys were first conducted, 71.3% of F2 doctors (F2 doctors = Foundation Year 2 doctors = PGY2 doctor/residents) progressed into specialty training posts. By 2016 this had dropped to 50.4% and the latest figures in 2019 show the number is now only 37.7%.[2] A recent report released by the General Medical Council (GMC) reflects the growing culture of leaving NHS positions both across the specialties and across the generations.[3] Doctors are increasingly moving to work overseas as evidenced in the latest UK Foundation report. Alarmingly, a recent survey by the Doctors Association UK (DAUK) suggests that more than 1000 of all doctors intend to leave the NHS within the next 3 years.[4] These numbers are in stark contrast to the traditionally high retention rates among junior doctors: defined as any doctor who has not completed their training and this can span between 5 and 12 years. Work by the UK Medical Careers Research Group (MCRG), initially conducted over a 25-year period between 1974 and 2002, reported retention rates of between 91.9% and 98.8% 10 years after graduation.[5]

A multitude of factors have been put forward to try to explain the exodus.[3,6] Changes to junior doctors' salaries, hours worked, a reduced investment in training, inflexible schedules, lack of consistent teamwork, and an understaffed service all contribute. Accounts of such experiences are increasingly reflected in the literature through several doctor-turned-authors' books.[7,8]

Burnout, the zeitgeist of the 21st century, is one of the most common reasons described for the mass departure of junior doctors.[9,10] However, little attention has been paid to the fact that many doctors leave their jobs in the NHS and move overseas to perform the same job in an entirely new healthcare system. In 2004, the MCRG published a study reflecting that several junior doctors intended to practice medicine abroad and they concluded that "the wish to work abroad, but to stay in medicine, was more common than the wish to leave medicine".[11] It would seem, therefore, that there is growing evidence that, while doctors may be burnt out of working in the NHS, they are not burnt out from the profession itself. Moreover, what does burnout mean to individual doctors?

Perhaps most importantly, despite the accelerating rate of junior doctors leaving the UK workforce at early stages in their training, exit interviews are not standard practice and are rarely performed. Whilst there is literature that discusses both the number of junior doctors who leave the NHS together with the factors that may drive them, there is, to date, no recent literature that asks the doctors themselves why they leave in favor of training programs overseas.

This mixed-methods study attempts to understand the factors and driving forces that lead to junior doctors leaving their jobs in the NHS and entering training programs overseas. These answers are of critical importance to the future of healthcare in the UK and the maintenance of a sustainable workforce.

2 | MATERIALS AND METHODS

2.1 | Participants and study design

A simultaneous and convergent mixed-methods study of UK medical school graduates who had left an NHS training program within the last 15 years (2003-2018) and were training or had trained overseas in clinical or academic medicine was conducted from June 2019 to May 2020. Using an online survey, doctors were asked to compare their training in the NHS to their training overseas and to discuss the factors that led them to leave the NHS. Semi-structured in-depth interviews were used to identify the factors and driving forces that led them to leave an NHS training program and enter a training program overseas. Exclusion criteria included: overseas medical school graduates; doctors who left a training program before 2003; doctors living or working in the EU (due to Institutional Review Board [IRB] restrictions); and doctors currently receiving a regular salary from the NHS. Two hundred and ten doctors participated in the survey study. The Harvard Medical School IRB Committee approved this study (IRB19-0140). All were required to confirm via audio and/or written consent.

2.2 | Survey instrument and interview guide

Participants completed a 15-minute online survey. The survey was constructed using the approach outlined by Artino et al[12] with items taken from previously administered surveys, and also developed *de novo* using extensive literature review and expert focus groups.[13] These groups included medical education researchers, junior doctors, and consultant physicians. Survey domains included: personal and professional characteristics (eg, sex, ethnicity, age, time since leaving the NHS, seniority, specialty, and country where training overseas took place); together with other domains pertaining to burnout, pay, job satisfaction, work environment, and work-life balance. Job expectations and academic achievements including medical school choices, advanced degrees, and accolades were collected but not reported in this paper. All methods for the survey comply with the American Association for Public Opinion Research (AAPOR) reporting guideline for survey studies.

Interviews explored reasons (short- and long-term) that led to junior doctors leaving their UK NHS training programs to train overseas, together with their experiences and reflections on their new training positions. The interview guide was developed with expert investigator consensus and piloted five times on junior doctors currently working in the NHS. Questions addressed individuals' roles

TABLE 1 Survey participant characteristics

Participants	No./Total no respondents[a] (%)	Response rate No./Total No. (%)
Demographic characteristics:		
Sex		138/210 (65.7)
Female	61/138 (44)	
Male	72/138 (52)	
Prefer not to say	5/138 (4)	
Age		141/210 (67.1)
20-24	0/141 (0)	
25-29	42/141 (30)	
30-34	51/ 141 (36)	
35-39	26/ 141 (18)	
40-44	8/ 141 (6)	
Over the age of 40	14/ 141 (10)	
Ethnicity		138/210 (65.7)
White	100/ 138 (73)	
Black or African American	2/ 138 (1)	
Hispanic or Latino	2/ 138 (1)	
Asian	17/ 138 (12)	
Other	9/ 138 (7)	
Prefer not to say	8/ 138(6)	
Professional characteristics:		
ARCP: Annual review of competency progression		138/210 (65.7)
Satisfactory ARCP	131/ 141 (93)	141/210 (67.1)
Unsatisfactory ARCP	5/ 141 (3.5)	
Prefer not to say	5/ 141 (3.5)	
Graduate vs Undergraduate		138/210 (65.7)
Undergraduate	110/ 141 (78)	141/210 (67.1)
Graduate	23/ 141 (16)	
Prefer not to say	5/ 141 (4)	
Other	3/ 141 (2)	
Years since leaving NHS		138/210 (65.7)
≤ 2	56/ 210 (27)	210/210 (100.0)
2–5	107/ 210 (51)	
5–10	36/ 210 (17)	
>10	11/ 210 (5)	
Country training-overseas		138/210 (65.7)
USA	8/ 62 (13)	62/210 (29.5)
Canada	5/ 62 (8)	
Australia	41/ 62 (66)	
New Zealand	6/ 62 (10)	
Other	2/ 62 (3)	

(Continues)

TABLE 1 (Continued)

Participants	No./Total no respondents[a] (%)	Response rate No./Total No. (%)
Specialty left		138/210 (65.7)
Emergency medicine	2/ 121 (2)	121/210 (57.6)
Medical specialities	57/ 121 (47)	
Primary care (GP)	3/ 121 (3)	
Surgical specialties	15/ 121 (12)	
Anaesthetics/ ACCS	34/ 121 (28)	
Foundation program	10/ 121 (8)	

[a]Percentages among respondents to each characteristic question.

within the NHS; reasons for choosing the NHS as an employer; experience of training in the NHS; strengths and weaknesses of training programs; defining moments in participants' training; experience with feedback and mentorship; pay; work schedules; work-life balance; reasons for leaving the NHS; and reflections on time since leaving the NHS in a new training program overseas.

2.3 | Data collection

Doctors were recruited using social media and online professional media identifying junior doctors, a network of junior doctors known to have left the NHS to train overseas, and a purposive sampling technique. A secure, web-based application, Qualtrics (Provo, Utah), was used to manage survey distribution and collect responses. The survey was launched in October 2019 and closed in March 2020. Links to the survey were disseminated online through sites such as Facebook, Twitter, and LinkedIn targeting junior doctor forums, and emails with the link were circulated to program directors and medical education colleagues. No identifying information was collected that could link individual survey data to participants and no incentives were offered.

A link at the end of the survey allowed participants to volunteer to be interviewed to take part in the qualitative analysis and doctors were encouraged to share the link with colleagues.

2.4 | Statistical analysis

Standard univariate statistics were used to characterize the sample, and the response rate for each variable was calculated. Percentages were calculated relative to the total number of responses for each variable, excluding the missing data points. Responses for job satisfaction, pay, and work-life balance, for both NHS and overseas data were reduced from the 6-point Likert scale to 2 categories: strongly and moderately agree, vs everything else. We assessed relationships between NHS and overseas variables using Chi-square tests in a univariate analysis. All *P*-

values less than 0.05 were considered statistically significant. Analyses were performed with the use of commercially available statistical software (Stata/IC version 16.1; College Station, TX: StataCorp LP).

2.5 | Qualitative analysis

The interview transcripts were evaluated using a template analysis. Using open coding, three investigators ([H.C.P.W.- lead interviewer], S.A., A.L.S.) independently generated a list of codes based on a review of three randomly selected transcripts. Relationships were then identified between codes to develop initial categories. The three investigators met to compare, discuss, and reconcile codes and develop a codebook. They then applied the codebook to two other randomly selected transcripts, altering the codebook as new concepts were identified. The codebook then underwent another iteration to create a final version containing detailed descriptions and examples of each code. This codebook was applied to the remaining interview transcripts, which the three investigators coded independently, ensuring each interview transcript was analyzed by at least two researchers as a check on reliability. Dedoose version 8.0.35 was used to organize and retrieve coded data. Themes were developed that reflected the relationships between the defined categories and the research objectives. Researchers met to clarify, refine, and rename themes until thematic saturation was reached, and all data within the transcripts had been fully described and categorized.

3 | RESULTS

3.1 | Quantitative findings: reasons why doctors leave UK training programs

3.1.1 | Characteristics of the respondents

210 doctors completed the survey. Of the respondents, 52% were male and 44% were female. 27% had left the NHS in the last 2 years, 51% in the last 2 to 5 years, 17% in the last 5 to 10 years, and 5% more than 10 years ago (Table 1).

3.1.2 | NHS retention efforts

96.1% of respondents (149/155) reported not having an exit interview upon leaving the NHS. 52.9% of respondents (82/155) who left NHS training intended to return. 40.7% (63/155) respondents intended not to return. 94.8% of respondents (147/155) did not regret leaving the NHS, while only 3.9% of respondents (6/155) regretted their decision (Table 2).

3.1.3 | Professional development

35% of respondents (62/177) reported that they did not have a mentor they could trust during their NHS training. 66.9% of respondents (117/175) reported that their expectations of being an NHS doctor did not match the realities of being an NHS doctor (Table 2).

3.1.4 | Wellbeing metrics

All 210 doctors responded to the question on burnout. Table 3 reflects a small and random sample of the breadth of answers given for burnout definitions. 53.8% (113/210) reported burnout prior to leaving the NHS. Of those who reported burnout, 89.2% (74/83) reported their burnout resolving after leaving the NHS and practicing medicine in another country, 26.5% (30/113) declined to answer this part of the question. Of those with burnout upon leaving the NHS, 10.5% of respondents (9/86) reported being diagnosed with mental health issues, while 83.7% (72/86) reported no diagnosis of mental health issues associated with their burnout (Table 2) and again 23.9% (27/113) declined to answer this part of the question. Of note of

TABLE 2 NHS retention efforts, professional development, and wellbeing metrics

	Yes	No	Prefer not to say	Response rate[a]
Variable	n (%)	n (%)	n (%)	n (%)
NHS retention effort				
Exit interviews	6 (3.9)	149(96.1)	NA	155 (73.8)
Intention to return to NHS	82(52.9)	63 (40.7)	10 (6.4)	155 (73.8)
Regret about leaving NHS	6 (3.9)	147(94.8)	2 (1.3)	155 (73.8)
Professional development				
Mentorship	115 (65)	62 (35)	NA	177 (84.3)
Expectations met	53(30.3)	117(66.9)	5(2.8)	175 (83.3)
Wellbeing metrics				
Burnout	113(53.8)	97 (46.2)	NA	210 (100)
Burnout resolution	74 (89.2)	9 (10.8)	NA	83/113(73.5)
Mental health diagnosis	9 (10.5)	72 (83.7)	5 (5.8)	86/113(76.1)

[a]Percentages among respondents to each question (n = 210, unless stated).

TABLE 3 A sample of definitions of burnout reported in the survey

I felt like the hours I was working were unsustainable and not worth the level of pay. Everything else in my life was on hold as I couldn't manage a life outside medicine alongside the amount I was working. Particularly I felt overwhelmed by the pressure to constantly be boosting my CV to compete for jobs so I could work in a job and location that suits me and my family.
Complete and utter exhaustion, lack of empathy, lack of sense of accomplishment
Becoming completely disinterested in your work, feeling uninspired and no drive to continue to perform well. As a result of heavy workload and terrible working conditions with limited support.
A loss of motivation, compassion and passion towards medicine, patients, and colleagues.
Working long hours with not enough clinical or pastoral support and regularly feeling out of my depth. Feeling the work load was overwhelming and that friends, family and the general public were unable to understand. Also, the financial pressures of poor pay and expensive rent
Working long hours with not enough clinical or pastoral support and regularly feeling out of my depth. Feeling the work load was overwhelming and that friends, family and the general public were unable to understand. Also, the financial pressures of poor pay and expensive rent
Physical, mental exhaustion due to working conditions and hours. Apathy towards care of patients and career progression.
Constantly exhausted. Didn't look forward to going to work.
Overwhelming stress leaking over into personal life, feeling under appreciated and reading going to work
Complete mental exhaustion
Exhausted, no longer caring about patients. Crying on my way to work. Being bullied. Unable to keep up or cope anymore.
Exhaustion and mental ill-health brought on by poor working conditions with minimal/no understanding and support from senior management and active malice from the government.
Unable to deliver the care to the standard I wish
Unsatisfied with the job, dreading going to work
Worsening cynicism, frustration, anger. Interfering with enjoyment of personal life
Physical and emotional exhaustion half of more days of the week. Lack of energy to pursue social, cultural, and physical activities outside of the workplace. Feeling undervalued by your organization.
Working long hours without being respected and unable to choose the leave I wanted so unable to see friends and family.
Constantly fatigued, unable to think clearly. Not enjoying work.
Exhausting, losing compassion
Stress, fatigue. Horrible roster/shift patterns. - lived 2 h from my partner due to different foundation schools. Medical on call involved 22:00 until 10:30 AM shifts.
Stress, fatigue, lack of empathy
An inability to be able to focus on life outside work
A feeling of physical, mental, and emotional exhaustion
Fatigue, not wanting to go to work, not caring enough about work
Overworked, underpaid, lack of career progress due to service provision as junior doctor which cause lack of motivation to continue in the programme
All consuming worry and exhaustion. Medicine took over my life.
Moral injury. Feeling asked to do a difficult and risky job without the resources to do it safely and protect patients. Constantly exhausted, no interest in anything outside of work, couldn't enjoy even time off because all I was thinking about was going back in.
Dreading going to work, not feeling supported. Doubting every day that you made the right decision.
I had blisters on my feet and i was doing 48 h oncalls some weekend. The training was substandarded, the work nd balance was beyond believe. There was no incentive to be in the NHS. The salary is barely livable wage.
Unable to balance clinical practice with family commitments.
Exhaustion from excessive hours. Low mood with little excitement for future consultant career (being a consultant looks awful). General anxiety for future of NHS. Concerns re risks of being sued or struck off.
Persistent lethargy and apathy in work environment.

respondents who were dissatisfied with their job in the NHS, 89.0% (113/127) were satisfied (moderately to extremely) with their jobs overseas. On the other hand, of respondents who were satisfied (moderately to extremely) with their jobs in the NHS, 13/14 (92.9%) continued to be satisfied (moderately to extremely) with their jobs overseas ($P = 0.655$) (Table 4).

3.1.5 | Employment metrics

Of respondents who were dissatisfied with work-life balance in the NHS, 90% (117/130) were satisfied (moderately to extremely) with work-life balance overseas. Conversely, respondents who were satisfied with NHS work-life balance, 66.7% (8/12) remained satisfied with

TABLE 4 Association between NHS and overseas professional development and employment metrics

Variable	Overseas job satisfactionn (%)		n	X^2-statistic[a] (df)	P value
	Agree[b]	Disagree[c]			
NHS job satisfaction n (%)					
Agree[b]	13 (92.9)	1 (7.1)	14	0.20 (1)	.655
Disagree[c]	113 (89.0)	14 (11.0)	127		
	Overseas work-life balance n (%)				
	Agree[b]	Disagree[c]			
NHS work-life balance n (%)					
Agree[b]	8 (66.7)	4 (33.3)	12	5.68 (1)	.017
Disagree[c]	117 (90.0)	13 (10.0)	130		
	Overseas pay n (%)				
	Agree[b]	Disagree[c]			
NHS pay n (%)					
Agree[b]	18 (75)	6 (25)	24	3.89 (1)	.049
Disagree[c]	105 (89.7)	12 (10.3)	117		

[a]Chi-square test for independence.
[b]Strongly and moderately agree.
[c]Included all responses of strongly disagree, moderately disagree, slightly disagree, slightly agree.

TABLE 5 Interview participant characteristics

Participants	No./Total no respondents (%)
Demographic characteristics:	
Sex	
Female	8/ 19 (42)
Male	11/ 19 (58)
Professional characteristics:	
Medical school	
London-based medical school	12/ 19 (63)
Oxford or Cambridge	5/ 19 (26)
Russell Group university	2/ 19 (11)
Time since leaving NHS (years)	
≤2	7/ 19 (37)
2–5	7/ 19 (37)
5–10	5/ 19 (26)
Specialty	
Emergency medicine	4/ 19 (22)
Core medicine/internal medicine	9/ 19 (47)
Primary care (GP)	1/ 19 (5)
Surgical specialties	5/ 19 (26)
Country where training overseas	
USA	10/ 19 (52)
Canada	2/ 19 (11)
Australia	5/ 19 (26)
New Zealand	2/ 19 (11)

overseas work-life balance ($P < 0.05$). Of respondents who were dissatisfied with NHS pay, 89.7% (105/117) were satisfied (moderately to extremely) with overseas pay. In contrast, respondents satisfied with NHS pay, 75% (18/24) were also satisfied (moderately to extremely) with overseas pay ($P < 0.05$), (Table 4).

3.2 | Qualitative findings: exploring why doctors leave UK training programs

50 doctors volunteered for interviews and themes were saturated after 19 interviews (Table 5).

Four key themes emerged in our qualitative data from the semi-structured interviews. These were categorized as push factors, which were lack of interest in retention, and bleak outlook; and pull factors, which were financial vs social capital, and things are different overseas. Expansion of the subthemes, explanations, and illustrative quotes can be found in Table 6.

3.3 | Push factors

3.3.1 | Lack of interest in retention

Throughout the interviews, doctors were grateful for the opportunity to explain why they had left the NHS. The fact that it was so easy to leave with no questions asked, was a recurring theme, and they felt there was total lack of interest in retaining them within the NHS.

> "*There was nothing in the system to try and retain what was a good junior doctor at medical school and at Foundation, and the door was shut and there was no effort to try and retain the junior doctor … I think this is really short sighted not to try and retain doctors who want to go abroad*" M7.

TABLE 6 Subthemes associated with push and pull factors and illustrative quotes

		Subtheme	Illustrative quote	Explanation
Push factors	Lack of interest in Retention	No exit interview performed	"*I mean it would be nice to feel like, I mean like a major consultant firm, like McKinsey, if someone leaves, they like keeping in contact so they can be in future benefit and they can offer various things in the future, I just feel like in the NHS, of course the doctors I worked with would remember me, but I feel like many ships have sailed and I am dead to them.*" M3.	Doctors consistently remarked that it was strange that no exit interview had occurred when they left their NHS training position. Many compared what happens in other organizations when staff leave and reflected that the NHS did not seek to understand why their staffs were leaving by even performing an exit interview.
		No attempt to retain	"*I was a bit confused leaving that there was like no attempt to ask or to say why are you doing this? Why I was leaving? Like why are you doing this? Like what can we do? We want to have you here, it was sort of like 'oh another number off the list' well that was my thought process about it at the time.*" M2.	Doctors referred to the fact that nobody had asked them why they were leaving or made any attempt to understand if their decision to leave could be reversed. Many emphasized that had they been asked what might encourage them to stay, then perhaps they would have done so. There was no attempt made to retain them.
		Encouraged to leave by senior colleagues	"*Every doctor I spoke to, when I mentioned I had done USMLE as a student and was considering America, actually told me to leave. Umm the reason they told me to leave was better education, better money, I did not meet a single Attending who told me stay in the UK for better training in the NHS.*" F3.	Doctors reported seeking advice from senior colleagues about career pathways in the NHS and actively being encouraged and given advice to leave the NHS while they were still young enough to make a career elsewhere.
	Bleak outlook	Never-ending journey	"*It's just not sustainable and the system is just not set up to do that long-term, no one can do that, it is not healthy, I got job satisfaction, but sacrificing 10-years of your life to a cause should not be necessary for a career.*" M6.	Doctors commented on training-programs in the NHS being long, especially in comparison to similar training-programs overseas. Doctors commented on the extent of time spent completing menial tasks that did not contribute to their end goal, in performing rotations unrelated to their specialism, and in performing work not requiring a medical degree. They talked about how the length of this process at times felt never-ending.
		Mediocrity vs excellence	"*I feel that if you feel that you are just going through the same process every day and doing the same tasks every day and not progressing at all, I think that is horrible. I think that the problem with the way the UK is, that people who go to med school are very cerebral people and when you go to med school you are choosing between that or going to somewhere else. So you are always aware of the opportunity cost of how could my life have been if I did, you know something business related or law related and I feel that, especially also, that I had so much to give in terms of ambition and knowledge I could further develop and then as the months went by I felt like my knowledge was declining and my ability to do certain task was getting better, I was very good at ordering a chest x-ray and this kind of stuff but I mean like I had become a little bit of a commodity and I felt like other parts within me were dying because of the system.*" M3.	Doctors consistently reported that there was no impetus to excel in their work. Mediocrity was the baseline. For many this felt demotivating and unsustainable, in conflict with their own aspirations for excellence. Doctors did not feel able to reach their maximum potential and this was often also felt to be at the cost of delivering poor patient care.

(Continues)

TABLE 6 (Continued)

		Subtheme	Illustrative quote	Explanation
		Lack of investment in career development	"*I mean to be honest, compared to other places like the US, I think the feedback is, I mean it is formalized you have to fill in forms and you have to do mini-CEXS but it is smoke and mirrors and you very much feel like a service provider and there is very little focus about reflecting on your care and the care you give and the only time you get feedback is if you did something really wrong*." F4.	The doctors relayed that there was little to no investment in their personal career development. Mentorship was scarcely present, feedback was either non-existent or delivered as tick-box exercises, and daily work had no relation to a doctor's long-term career goals. Doctors commented on the lack of personal investment at the recruitment stage, on the random allocation and lottery of deanery placements, and on the chaotic nature of training.
Pull Factors	Financial vs social capital	Pay	"*No, I mean no, I mean especially if you go to one of the top medical schools, you have been at university with other people from top institutions, you know who have jobs that require a similar level for qualifications like law, banking, anything else, I mean definitely not, No we are not. And definitely not for overtime, there was no route to get paid for overtime*." M3.	Doctors identified that the monetary compensation received was poor relative to similarly skilled professionals, with inadequate financial reward for the responsibility and qualifications. Pay did not reflect overtime and pay did not reflect the true number of hours worked. Doctors reported that significant work was expected for free, that pay was not reflective of the overall economy, and that their pay was not proportional to their level of skill, training, sacrifice nor specialism.
		Undervalued	"*So, training in the UK equals being undervalued, working incredibly hard and instead of getting a thank you, you get screwed at every corner and this negativity in the media*." M6.	There was strong reference to the importance of feeling valued with the work that is undertaken as a doctor. Doctors consistently reported that they did not feel valued as a doctor-in-training. They reported poor treatment from management, poor treatment by the media with specific reference to the effect of negative press, and a general sense of under appreciation.
		Treated as a number	"*It is just a complete disregard for the wellbeing and the human factors of the staff, that, treating you like a number, not a person and that is the way the NHS does it*." M6.	Doctors reported a complete lack of humanity associated with junior doctors. There were repeated reports of being treated as a number rather than as an individual, of being treated as dispensable, and of being treated as a "rota gap" rather than a valued member of the workforce.
	Things are different overseas	Greater opportunities overseas	"*I mean in terms of time allocated to training rather vs service provision. So, I feel I have more, because the system is less stretched here, I have more time allocated to my training needs as opposed to just service provision*." F6.	Doctors continuously made mention of the greater opportunities presented overseas. This was common across pay, promotion, specialism, clinical skills, education, research, and patient care. Across several different countries, study participants cited the same common improvements, together with an overarching sense of being valued.
			"*We weren't actually doing anything to help patients you were just there just doing things, we weren't doing things that we were*	Unlike in the NHS, doctors frequently reported being able to work as the doctors they had imagined themselves to be.

TABLE 6 (Continued)

Subtheme	Illustrative quote	Explanation
Working at the top of one's license	*training to do, we weren't working at the highest level of our education you know anyone can do a blood draw why am I doing a blood draw, you just spent, as a nation, thousands of pounds educating me, why I am doing a blood draw that can be someone else's job who didn't spend 5 years training to do this you know, you trained me to think, to try to put pieces of puzzle together, you trained me to do blood draws but that's not the top of my ability, the top of my degree.*" M4.	There were consistent reports of less administrative work, less "scut work", and a greater sense that doctors were working at the top of their license and thus skill level.
Impossible to return	"*Whenever I spoke to my friends in the NHS they seemed absolutely miserable and I just thought there is no way, I thought I am really happy now, how can I choose to go back into something that I know will make me be unhappy? That's not a decision I can make easily.*" M8.	Having stepped out to train abroad, even if the intention had originally been just to garner overseas experience and then to return to practice in the UK, recognition of how much better life as a doctor-in-training overseas was, made it impossible to return to work within the NHS.

Subthemes included: no exit interviews performed, no attempt to retain, and encouragement to leave by seniors.

3.3.2 | Bleak outlook

Doctors reported that there was no clear horizon when training in the NHS. They felt a sacrifice for a period of time was acceptable if a positive end was in sight, but sadly felt that the outlook was bleak.

> "*My experience of working in the NHS was that it was not going to turn me into the best doctor I could be*" M6.

Subthemes included: never-ending journey, mediocrity vs excellence, and lack of investment in career development.

3.4 | Pull factors

3.4.1 | Financial vs social capital

Doctors described their training within the NHS as being a constant battle between financial and social capital. In effect, lower pay would perhaps be acceptable if the intrinsic value of being a doctor were compensated.

> "*You are undervalued, very, very undervalued and not paid for the work you do*" M6

Subthemes included: pay, undervalue, and treated as a number.

3.4.2 | Things are different overseas

All doctors included in this study were those who, having left the NHS, were now training in clinical or academic medicine overseas. Doctors compared and contrasted their training experiences overseas with those in the NHS.

> "*The overwhelming thing you notice is the unbelievable sense of being valued.*" F6

Subthemes included: greater opportunities overseas, working at the top of one's license, and the impossibility of return.

4 | DISCUSSION

To the best of our knowledge, this study is the first to hear from junior doctors in training who have left the NHS to continue their training overseas. Our study has highlighted that 96.1% of doctors who quit are not interviewed when they leave the NHS, that 52.9% intended to return when they left, but that 94.8% of these doctors

TABLE 7 Common issues encountered by junior doctors training with the NHS solutions and overseas solutions

Issue	NHS solution	Overseas solution
Sick Leave	Unable to take due to staffing shortages	Sick leave covered
Working near partner	Geographically separated	Partner/ couples rotas offered (ensures same on-call hours and thus same time-off)
Recruitment	Random allocation/lottery	Chosen/selected to job with in-person interviews
Overtime	Unpaid	Weekend paid overtime
Anti-social pay	Not reflected in paycheque	Well reflected in paycheque

do not regret their decision to quit the NHS. Importantly, doctors are significantly less satisfied with their pay and work-life balance in the NHS than they are overseas. The themes illustrated by the qualitative data provide insight from the voices of those doctors who have left the NHS into push and pull factors that are likely contributing to the exodus from training programs in the UK. The results have clearly emphasized that junior doctors feel that training in the NHS has been all but lost and has instead been replaced by service provision. Perhaps this reflects a wider mismatch between the former, "training body" -the responsibility of the deanery or Royal College and the NHS hospital- as the place where the work and training are conducted. Whether due to the sheer length of training, the lack of senior role models, or indeed the lack of personal investment and thus appreciation, this bleak outlook is inescapable.

Considerable work has already been conducted by the MCRG following thousands of doctors over a period of 40 years. The research has investigated doctors' intentions on graduation from medical school and how this has translated to their continuing career.[5] Our study builds on this previous work, which emphasizes the accelerating nature of the issues addressed. For example, this group published a paper highlighting that a marked change in career planning had occurred in the 2015 survey cohort. The authors noted that the response to whether UK graduates intended "definitely or probably" to practice medicine in the UK has dropped from 90% in 1977 to 1986 cohorts, to 64% in 2015.[14] This body of research has similarly used surveys to gather information on doctors' thoughts and plans for their medical careers as well as capturing some of the voices who have left the NHS, specifically doctors in New Zealand.[15] Other groups have previously considered emigration patterns in the healthcare workforce and asked what sort of working conditions led to the exodus pattern.[16,17] We believe our work complements previous work as well as capturing a deeper exploration of doctors who have left the NHS across the specialties and are now practicing around the globe.

Other researchers have previously evaluated why doctors in particular specialties, such as general practice, leave the NHS early. This research accurately highlights the issues doctors face as they approach retirement from clinical practice,[18] but fails to consider the accelerating dropout rate in younger junior doctors, who should be at the height of their careers. Our study builds on this research by including a wider spread of generations and specifically considers this issue. The GMC and UKFPO have surveyed doctors as they leave their F2 posts and produced "destination reports".[1,2] While such data provide statistical information on a doctor's possible future choices, it is rather a snapshot in time of their experience and plans. Our study provided a cross-sectional approach that aimed to address the actual choices of doctors several years into their experience of NHS training, as opposed to a snapshot of their intentions prior to starting their NHS training posts. This could be adopted in the future to ensure we keep track of junior doctors who step out of the NHS much as the MCRG have previously conducted. Further, our study was designed specifically to ask doctors who had made the choice to commit to training abroad about their comparative experiences of training in the NHS vs overseas, and to ask whether they regretted this decision. Our data showed that when doctors left the NHS, over half intended to return. Yet the majority did not regret their decision to step out of NHS training. This highlights that, perhaps, having experienced an alternative healthcare system where pay and work-life balance appear to be better, it simply becomes impossible to return to the NHS. Future studies should explore in more depth what it is that junior doctors experience overseas that changes their view on working in the NHS irreversibly.

Our study highlights that there is an acute need for exit interviews with doctors who leave the NHS. The overwhelming response to this study and the willingness and desire of doctors to have their voices heard indicates the substantial appetite for exit interviews to be held routinely within the NHS.[19,20] Studies within the other industries support the need for exit interviews with employees, particularly during periods of significant departure. Our study suggests that talking to employees as they leave, could provide an opportunity to persuade them to rethink their decision to leave.[4]

Doctors frequently reported that they were often expected to perform entirely administrative duties, which simply did not require a medical degree. This led to a significant feeling of poor opportunity for growth in their work or professional development. It is essential for any successfully functioning organization, to ensure that its workers are used to work at the "top of their license". Perhaps reassessing and redefining the "unique selling point" of a doctor in today's NHS is the next essential task so that the workforce can truly be prepared to meet the needs of its population. It is vital that the roles of the doctors align with the nature of the work and enable doctors to work as the skilled professionals they are trained to be.

Importantly our data show that burnout was an issue in junior doctors who quit the NHS. This burnout was resolved when they entered training programs overseas in 89.2% of cases. Previous reports have suggested that doctors leave the NHS because they are burnt out of medicine. However, our study casts doubt on this suggestion. Perhaps instead doctors leave the NHS because they are burnt out of *the system*, a view shared by a recent MCRG study.[11] We found that such doctors were willing and able to continue practicing medicine in another healthcare setting. We could perhaps learn from this that burnout of the NHS can be distinguished from individual burnout of the medical profession and should be addressed. We must ensure we do not continue to allow this brain drain nor continue to scapegoat doctors who leave. Previous work has looked at the long-term effect of the brain drain on the Irish health care system.[21]

This data gives the insight to allow the development of initiatives and curricula changes that might halt the accelerating exodus and improve retention of junior doctors within the NHS. By asking doctors who have left about the similarities and differences with training programs they have been enrolled in overseas, we can begin to identify strategies that could be implemented in the UK to improve retention rates. A sample of some of the common issues encountered for junior doctors in the NHS, together with solutions that were found in training programs overseas is highlighted in Table 7. Moreover, as healthcare systems around the world respond to workforce problems, we believe our data offers an insight into the shared values and ideals of young doctors or residents more globally.

There are several limitations to this study. First, for the semi-structured interviews, the participants were a self-selecting group in that they volunteered to be interviewed for this study. We did, however, interview a wide range of junior doctors who had worked in different areas of the UK and in different specialties within the NHS, and who were now dispersed across the globe in different training programs and this study is the first time we have heard from those junior doctors that have already left the NHS and are training abroad. Second, our IRB restricted us from interviewing or surveying doctors who had left the NHS and who were now working in the EU due to complex restrictions surrounding Brexit and as such we were not able to capture the views of doctors training in Europe nor doctors who remained in the NHS. Thirdly our survey is limited by missing data and thus answers may be prone to selection bias. The small sample size for certain questions likely contributed to a failure in showing differences between NHS and overseas metrics which can be further tested with a larger sample size.

Importantly we recognize that our data does not highlight all possible reasons why doctors leave the NHS. There is evidence to show that doctors today may seek adventure and travel as important career determinants. Sharma et al highlight factors such as "better lifestyle" or "married a New Zealander" in their study of doctors in New Zealand. The importance of such lifestyle factors should not be underestimated but we believe that our study highlights that despite this there is a growing belief that training in the NHS is no longer an attractive option, a view supported in a paper by Lambert et al which found "the dominant reason for leaving medicine was a negative view of the National Health Service".[22]

It is important to recognize that whilst our study focused on the newest doctors in the workforce, national data, as reflected in the GMC's educational report, clearly supports that there is also an issue at the senior level, from consultant onwards. Our data highlights the detrimental impact of the frustration felt by these senior clinicians to the retention of junior staff.

5 | CONCLUSION

This study highlights the urgency of addressing the issues currently faced by our junior doctors that are resulting in an exodus of epic proportions from UK training positions. It seems clear that routine exit interviews are needed to provide critical information regarding issues for training in the NHS, together with providing an opportunity to understand if the decision to leave could be reversed. The information gathered first-hand from junior doctors overseas must be embraced and learnt from—it offers valuable ideas for strategies to improve UK training programs and enhance job satisfaction and retention. Treating our workforce with respect, humanity, and the professionalism they deserve is imperative. Paying our workforce to reflect the hours they work, the skillset they have and the personal, professional, physical, and mental sacrifices they make can no longer be ignored. We must shift our model of work in the NHS away from service provision and back to training to ensure the long-term future of the NHS and high-quality patient care for the public in the UK. Moreover, we must be open and transparent about the issues that the UK faces so that other countries may learn from this data and seek to ensure workforce planning is top of the agenda across the globe.

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TRANSPARENCY STATEMENT

manuscript is an honest, accurate, and transparent account of the study being reported; no important aspects of the study have been omitted.

DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions. The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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