How the organisation of medical work shapes the everyday work experiences underpinning migration trends: the case of Irish-trained emigrant doctors in Australia.
John Paul Byrne, Edel Conway, Aoife McDermott, Anne Matthews, Lucia Prihodova,
Richard Costello and Niamh Humphries
Pre-published version of paper published in:
Byrne, J.P., Conway, E., McDermott, A.M., Matthews, A. and Prihodova, L., Costello, R.W. and Humphries, N. (2021). How the organisation of medical work shapes the everyday work experiences underpinning migration trends: the case of Irish-trained emigrant doctors in Australia. <i>Health Policy</i> , 125(4), 467-473.

Abstract

Medical migration is a global phenomenon. In Ireland, hospital doctor emigration has increased significantly in recent years, with Australia a destination of choice. With work and employment conditions cited as a driver of these trends, this article explores how health system differences in the organisation of medical work shape the everyday experiences of hospital doctors which underpin migration decisions. Drawing on 51 semi-structured interviews conducted in July-August 2018 with Irish-trained hospital doctors who had emigrated to work in Australia, the findings highlight doctors' contrasting experiences of medical work in the Irish and Australian health systems. Key system differences in the organisation of medical work manifested at hospital level and related to medical hierarchy; staffing, support and supervision; and governance and task coordination. Findings indicate that retention of hospital doctors is as much about the quality of the work experience, as it is about the quantity and composition of the workforce. At a time of international competition for medical staff, effective policy for the retention of hospital doctors requires an understanding of the organisation of work within health systems. Crucially, this can create working contexts in which doctors flourish or from which they seek an escape.

Introduction

Doctor migration is a global phenomenon which must now be addressed by policymakers in low, middle, and high-income countries (1). International flows of doctors are driven by the quality of working conditions nationally and the employment opportunities available internationally. Health workforce reports from the UK and Ireland (2, 3) have highlighted the influence of working conditions, leadership and culture on doctor retention. Poor working conditions and deteriorating job quality, coupled with the availability of better practice environments and career prospects internationally, have been explicitly highlighted by Irish

emigrant doctors as a motivation for their emigration – with Australia becoming the most popular destination (4-6). To understand the work-related drivers of hospital doctor emigration, we need an in-depth, exploration of the health system contexts and working conditions which shape the experience of medical work (7, 8). Understanding these dynamics requires context-specific analyses, asking not only 'What works?', but 'What works, for whom, under what circumstances, and how?' (9). Extending Burke at al.'s (10) analysis of an Irish health system under pressure, we show how austerity-related cuts to the Irish healthcare system continue to affect the organisation and experience of medical work within hospitals, and therefore the migration intentions of hospital doctors in Ireland. At a time of political consensus around the need for major healthcare reform (11), Irish health policy needs to improve its understanding of the working conditions which underlie Ireland's high rate of doctor emigration (12). This paper seeks to address this gap. In so doing, it provides insights relevant for doctor retention in other health systems.

Doctor emigration

The medical workforce in Ireland is characterised by a high level of turnover with high rates of emigration (6), and an increasing reliance on internationally-trained doctors (12). More than its European counterparts, Ireland is both a destination for, and source of (13, 14), internationally-trained medical doctors. The proportion of internationally-trained doctors in Ireland has increased from 13% in 2000 to 43% in 2017/18 (3). In terms of outflow, in 2007 Ireland was identified as the European country with the highest percentage of doctors working abroad (15). Since the 2008 recession, Irish doctor migration has increased year on year with 446 doctors emigrating to the UK, US, Canada, New Zealand and Australia in 2008, and 627 in 2014 (16, 17). Australia has become the most popular destination for Irish migrant doctors with the number of Irish citizen doctors issued with working visas doubling

from 153 in 2008/09 to 326 in 2017/18 (6). These migration flows are shaped by the dynamics of push and pull factors linked to the experience of medical work. Recent health workforce literature has explored the connections between working conditions, job satisfaction, and doctor emigration. Irish-trained migrant doctors have described how the extreme nature of their work (e.g. long working hours, fast working pace, unlimited scope of responsibility, negative climate) has become normalised, negatively impacting their job satisfaction, working lives, and promoting decisions to migrate (5). A more recent study of hospital doctors in Ireland highlights the impact of work-life imbalance on doctors' lives, illustrating how a healthy work-life balance is often at odds with the organisation of hospital medicine, prompting doctors to consider emigration or retirement to find balance in their working lives (18). A cross-sectional survey of health sector workers in Serbia found high rates of job dissatisfaction amongst physicians; poor management, organization and equipment linked to higher job dissatisfaction rates, while job dissatisfaction increased intentions to work abroad (19). Studies of hospital doctors in Germany, Poland and China also highlight how working conditions (e.g. excessive workloads, decision-making autonomy and professional communication) affect job satisfaction and migration decisions or turnover intentions (7, 20, 21). To borrow a phrase from recent burnout literature, the work experiences, job dissatisfaction, emigration intentions, and burnout, of hospital doctors are "...rooted in the organizational coherence of the health care system" (22). We build on this literature to explore how organisational factors shape the working conditions and experiences of hospital doctors in different health systems.

The impact of doctor emigration

High rates of hospital doctor emigration present a threat to the Irish health system as it results in a loss of skills and staffing, a deterioration in service continuity due to workforce gaps (6),

and the high-cost of medical agency staff (e.g. locums) to plug these gaps (23). Within hospitals, high rates of turnover and understaffing are likely to create additional workload and increase doctors' exposure to extreme conditions and potential burnout (4, 5, 24, 25). This, in turn, could fuel further emigration. Existing literature (4, 5, 16, 24-26) therefore highlights a closed loop of deterioration: strained working conditions and push factors lead to high rates of migration, staff shortages, additional frontline burden, subsequently leading to the further straining of working conditions. To date, Irish policy responses to the issue of hospital doctor retention have included: i) increasing the number of medical graduates (1, 4); ii) more targeted international recruitment of non-EU trainee doctors via the International Medical Graduate Training Initiative (IMGTI) (26, 27), and; iii) a call for restoration of consultant pay parity to equivalise pre- and post-austerity (2012) contracts, alongside the introduction of increased consultant salaries for public-only contracts (28, 29).

However, these approaches conflate improved retention with increased recruitment, downplaying the systems and organisations of healthcare that shape work conditions and experiences. For example, in July 2013 the Minister for Health established a working group (the MacCraith Group) to address doctor retention (30). While the Strategic Review of Medical Training and Career Structure (MacCraith) Reports note the importance of some working conditions (e.g. protected training time, task shifting), the latest progress report highlights two significant points: i) a call to expand the IMGTI initiative to address Ireland's dependence on non-training junior doctors by recruiting more non-EU doctors as temporary trainees, and; (ii) feedback, gathered as part of the process, which indicates that little has changed for the experience of junior doctors on the frontline in Irish hospitals (31). These points illustrate how such policy responses serve to change the doctors in the system, rather than the contexts and conditions of medical work which drive migration trends (5, 26, 32). It

is both the organisation and experience of medical work – embedded within health systems – which underpin high rates of mobility and which require further exploration and analysis.

Migration: working conditions and their contexts

While general population migration from Ireland to Australia has declined since 2008, the number of Irish-trained doctors emigrating to Australia has increased (6). Strained health system resources and the extreme work environments of Irish hospitals have driven Irish-trained doctors to seek an 'exit' (5). Ireland's austerity-related restructuring of the health sector saw funding cut by approximately €2.3 billion, leading to a decrease of 12,000 Health Service Executive (HSE) staff between December 2007 and 2013, and 941 fewer public hospital beds in 2012 compared to 2008 (10). These resource cutbacks had a significant impact on a health system already under pressure due to increased patient numbers, enlarged chronic disease burdens, and historic under-investment (33). Table 1 presents some key indicators of health system infrastructure in Ireland and Australia, highlighting the contrasting contexts in which medical work is embedded.

Table 1: Selected Macro Health Sector Indicators in Ireland & Australia

Indicator	Year	OECD Average	Ireland	Australia		
		(2017 or nearest				
		year)				
Health Expenditure as % of	2018	8.8	7.0	9.3		
GDP						
*Health Expenditure per capita	2018	\$3994	\$4915	\$5005		
(US\$)						
Physician Density per 1,000	2017	3.5	3.1	3.7		
pop (all hospitals)						
Hospital Bed Density per 1,000	2016	4.7	3.0	3.8		
pop (all hospitals)						
Inpatient Care Discharges (all	2016	15,474	13,790	18,050		
hospitals), per 100,000 pop						
CT Scanners total per million	2017	26.8	19.1	64.4		
pop						
MRI Units total per million pop	2017	16.7	15.2	14.2		
**EM Specialists – ratio per	-	-	2.2	6.8		
100,000 pop			(2017)	(2015)		
Sources: OECD	Health	Statistics	2019	(34);		
http://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_REAC						

Providing important context for our findings, the latest OECD Health Statistics show Ireland lagging behind Australia across a range of macro health sector indicators (Table 1), including; health expenditure, physician density, healthcare resources, service efficiency, and medical technology. The disparity in rates of health spending as a % of GDP, Emergency Medicine (EM) specialists, inpatient care discharges, and computed tomography (CT) scanners in Table 1 are particularly striking – despite similar levels of per capita health expenditure. Going back to the World Health Organisation's health system framework (37), the indicators in Table 1 represent the financial, workforce, service delivery, and technological 'building blocks' of contrasting health systems in which hospitals are embedded – providing the backdrop for the organisation of medical work in both the Irish

^{*}OECD (2019) Health at a Glance Statistics (35); https://doi.org/10.1787/888934016778

^{**}HSE NDTP (2017) Review of the Emergency Medicine Workforce in Ireland (36)

and Australian contexts. This paper explores how the organisation of medical work shapes the experiences of Irish-trained hospital doctors who have worked in both systems.

Materials and methods

Design

To explore doctors' experiences of work in Ireland and Australia, 51 semi-structured interviews were conducted with Irish-trained hospital doctors who had emigrated to Australia. As doctors who chose to leave the Irish healthcare system, these individuals represent a key source of data for understanding how the organisation of medical work shapes doctors' everyday experiences. Humphries et al. (4, 5) highlight how extreme work environments and job quality deterioration informed the migration decisions of Irish-trained junior doctors. We build on this by exploring how the organisation of medical work shapes the working conditions and experiences for Irish-trained hospital doctors in two different health systems.

Sampling

As the Irish health system does not officially record doctor emigration, a snowball sampling strategy (Silverman, 2000) was used. The principal investigator (PI) published an article in the emigrant section of an Irish national newspaper. This article was circulated via social media channels and potential participants then contacted the PI. Table 2 presents a profile of participants. With an approximate 50-50 split between consultants and non-consultants, the participants represent a slightly more senior sample when compared to the population of Irish-trained doctors in Australia. 31% of the Irish-trained doctors in Australia in 2016 were

specialists, while 28% of Irish-trained doctors emigrating to Australia in 2017/18 were senior clinicians (6).

Table 2: Participant Profile (N=51)

Sex	Male	32
	Female	19
Year of Arrival in	2017-2018	15
Australia	2008-2016	25
	Pre-2008	11
Age on Arrival	20-29	25
	30-35	17
	35+	9
Career Stage at Migration	Straight after Internship	20
	During Training	15
	Fellowship	12
	Consultant	4
Grade at time of Interview	Junior Doctor	10
	Senior Trainee	17
	Consultant	24

Data collection

Interviews were conducted by the PI in Australia in July and August 2018 (36 face to face and 15 by phone) and lasted for an average of 48 minutes (ranging from 28-95 minutes). The research received ethical approval from the PI's institutional ethics committee. Consent was obtained from each respondent prior to interview. Interviews were digitally recorded and transcribed by a professional third-party and interviewees were offered the opportunity to review their transcript. The topic guide consisted of five major experiential themes: qualifying and working as a doctor in Ireland; the decision to migrate to Australia; working as a doctor in Australia; living in Australia; and future plans.

Analysis

Analysis was informed by abductive principles (38). Data were de-identified and input into MaxQDA (V18.2) for management and analysis. Primary coding and indexing were conducted by the PI. Refinement of codes and conceptual categories was conducted by the lead author, who liaised regularly with co-authors to review the analysis. Analytical stages included: the creation of a broad coding schema in line with interview topics; familiarisation with the data; indexing and allocating data to codes, and; refining key codes into categories (39). A key surprise that emerged from the data was participants' use of the organisational features of medical work (e.g. hierarchy, staffing) to contrast their experiences in Ireland and Australia. The data were therefore revisited (38) to analyse the impact of these organisational features on participants' descriptions of work experiences in Ireland and Australia. Statements in the findings are referenced by participant number, current grade, and the country referred to in each statement.

Limitations

Due to the research design, there is potential for self-selection and recall bias. Participants had migrated to Australia and therefore may have used the interview to justify this decision. However, by working in different institutional contexts, participants were able to compare their experiences in terms of healthcare systems rather than individual capacities. Although participants identified issues related to working in Australia, the analysis focuses on how the comparison throws key system characteristics that influenced work experiences into light. Twenty participants had progressed into consultant positions in the time between emigration and interview. Here, care was taken during analysis to focus on how participants discussed the organisation of medical work, rather than specific roles, in each context. Participants were

critical of their experiences of work within the Irish health system, perhaps because they no longer worked there, and the interviewer was Irish and a researcher rather than a hospital doctor.

Results

The doctors interviewed used their working conditions in Australia to explain and contrast the strained working conditions they experienced in Ireland. In doing so they depicted how: (i) medical hierarchy; (ii) staffing, supervision and support; and (iii) governance and task coordination, shaped their contrasting experiences of work in Irish and Australian hospitals; 'The medicine's the same...It's the systems that they have here...' (P37/Consultant/Australia). We detail each organisational feature before illustrating how they permeated experiences of diagnostic access.

Medical hierarchy and communication

Participants experienced intra-professional relations in Irish hospitals as very hierarchical with consultants referred to by title and surname in most interactions. Relationships between non-consultant hospital doctors (NCHDs) and consultants in Irish hospitals were described as 'old school'. Linking hierarchy and communication, this was perceived as an obstacle to information exchange and the raising of concerns, which impeded timely care delivery. In Australian hospitals, participants noted that doctors of all grades were on first-name terms.

...you'd be calling somebody Doctor So-and-So, your consultant until the day you become a consultant... it is a barrier to communication that exists unnecessarily in Ireland (P12/Consultant/Ireland).

...everyone goes by their first name...That instantly breaks down barriers in terms of how people interact with each other, the environment created...breaking down the hierarchical structure... (P4/Senior Trainee/Australia).

The experience of doctors in Irish hospitals illustrates how status, knowledge and power were (re)constructed in everyday interactions creating communication barriers (40). In contrast, a culture of 'graded assertiveness' (P38/AUS/Senior Trainee) was championed in many Australian hospitals, particularly for those working in critical care. This organisationally-promoted approach encouraged all healthcare professionals – regardless of seniority – to speak up if they had concerns about clinical practices. Responding to a stroke call in an Irish Emergency Department (ED), one participant noted:

I'm the main reg [registrar] on. I get told it's a stroke query, I go assess them. I have to ring my consultant, who then has to ring the radiology consultant, who then rings the radiology reg [registrar] to come in and do the scan (P49/Senior Trainee/Ireland).

Here, the coordination and delivery of patient care required communication which went up the hierarchy of one specialty (EM) and down another (Radiology) before the correct person was identified, notified and dispatched to deliver care. In contrast, participants spoke of devolved decision-making as the norm in Australian hospitals. Care coordination involved a range of allied healthcare professionals (of different grades) simultaneously involved in patient care plans:

...I certainly had come from that hierarchy - the doctor's opinion was final [in Ireland]. I certainly wasn't used to say, the physio will go; "Actually, I don't think we should do that operation" ... Everyone's opinion counts, and everyone has an opportunity to be heard (P24/Consultant/Australia).

Communication with medical team colleagues – inherent in most medical tasks – was significantly shaped by contrasting experiences of medical hierarchy in the hospital. These contrasting experiences of hierarchical communication were fostered by striking differences in staffing levels and supervision experienced by participants in Ireland and Australia.

Staffing, supervision and support

The level of staffing impacted participants' experience of work and training (16). Participants noted that accessing consultants was much easier in Australian hospitals because there were more consultants on the floor, making it more straightforward for junior doctors to receive supervision and support. Highlighting how system characteristics can play out in work experience, flatter hierarchies facilitated more support via accessible consultants, which was, in turn, enhanced by the level of staffing on the floor. The number of consultants on the floor in Australian hospitals was described as 'incredible' whereas visibility of consultants in Irish hospitals was perceived as rare. Participants recounted several incidents in Irish hospitals where senior supervision was absent:

There were many times...you'd be the only one treating them [patients], and you'd call in for help and no one would turn up (P3/Senior Trainee/Ireland).

There were some outpatient clinics at home that would never have a consultant present... (P17/Consultant/Ireland).

...you're completely on your own...I was very unsupported a lot of the time... (P26/Junior Doctor/Ireland).

These experiences of being unsupported at work were particularly palpable overnight in Irish hospitals as participants described after-hours work as 'scary' as it was '...all on you'

(P46/Senior Trainee/Ireland). Opportunities for learning and mentorship in Irish hospitals were frequently described as 'non-existent'. The perceived lack of senior supervision – combined with the hierarchical professional relations – meant that participants were reticent to call for help (usually by phone) unless it was unquestionably an emergency.

The number of consultants in Australian hospitals meant there was always a strong senior presence on the floor. Junior doctors felt they did not have to 'chase' consultants as they had done in Ireland. This provided a sense of reassurance, through continuous access to clinical support and the availability of consultant time. Some participants specifically contrasted the registrar-delivered service in Irish hospitals with a comprehensively consultant-delivered service in Australian hospitals.

They're there, you can see them. They're indispensable. It's not like you have to go to their office or call them...They're right there. Which is amazing... if you have a problem, you can ask someone really easily for their help, their advice...you get training from that... (P46/Senior Trainee/Australia).

Governance and task coordination

Hospital-level structures also influenced participants' experience of medical work in Irish and Australian hospitals. These included governance mechanisms, chains of command, team structures, and task coordination. Irish hospitals were portrayed as having limited management structures alongside hierarchical professional relations, whereas Australian hospitals combined a wide range of management structures with flatter relational hierarchies. For example, Australian hospitals were depicted as having strong governance structures where consultants reported to departmental directors (e.g. reporting structure of Board -

Director of Medical Services -- Departmental Directors – Consultants) and everyone was accountable to someone.

There seems to be strong corporate oversight between the clinical director, and the board of management in hospitals...there's a director of medical services, who the individual departmental directors report to, who the individual consultants report to. So there seems to be a stronger corporate hierarchy (P12/Consultant/Australia).

Participants described more levels of accountability in Australian hospitals; '...multiple layers... A lot of checks. A lot of balances' (P38/Senior Trainee/Australia). Formal team structures were perceived as a resource in both coordinating the workload and ensuring consistency in care delivery; '...there is less heterogeneity in terms of approaches to practice...both clinical and how you manage your day' (P12/Consultant/Australia). Flatter relational hierarchies, combined with a greater number of consultants, and more defined governance structures led to a better coordination of care services:

...every team that I've worked in, there's what's called team leader or manager...separate to the consultant...in charge of the non-doctors on the team...line manager for the nurses, psychologists and so forth...They also have a role in the budget management...making sure that services are delivered...in Ireland, that doesn't exist really. Essentially, it's down to the consultant to both manage patients and deliver services.... (P35/Consultant/Australia).

The coordination of medical work in Irish hospitals was primarily 'down to the consultant', who were limited in number, and tasked with managing clinics, organising workloads, and delivering services. However, Irish hospitals were also regarded as having limited governance structures for consultants in terms of their own work. Consultants were described by one participant as '...a law onto themselves...' (P22/Senior Trainee/Ireland). The combination of low consultant numbers, limited governance, and hierarchical professional

relations in Irish hospitals meant that the personalities and working preferences of consultants and registrars were hugely influential in shaping the experience of medical work. The Registrar was identified as a key figure for most junior doctors; 'If they're good...clued in...a nice person, then you're going to have a great time...if they're lazy...incompetent...you're going to have an awful time' (P23/Junior Doctor/Ireland). In the absence of more defined management structures, the coordination of work in Irish hospitals was shaped by professional, individual and interpersonal factors. The findings thus far illustrate how health system differences play out in the work experiences of hospital doctors via the organisational features of medical hierarchy, staffing and support, and governance and task coordination. The following example demonstrates how these features also infuse the experience of core medical practices.

A medical practice example: accessing diagnostics

The CT scan represented a significant source of frustration for participants in Irish hospitals – shaped by hierarchy, stretched staff, and limited task coordination. Obtaining a CT scan was typically a task assigned to interns in Irish hospitals;

...the consultant would say... "I want a CT" ... They wouldn't really explain...just expect you to understand... You'd go down then, to argue with the radiologist like a consultant - you're an intern - about why you want this scan. They've got more medical knowledge... They're also over-stretched, under-resourced. There's always this tense battleground to get scans done (P51/Consultant/Ireland).

This statement illustrates how limited CT infrastructure, understaffing (Table 1) and medical hierarchy impede the efficiency of diagnostic access. In some Irish hospitals, participants described a limited timeframe within which they could request a scan and a limited number of CT slots available. As a result, interns from different departments needed to complete their

CT order form and race to radiology to ensure they were at the front of the physical queue at the allocated time: 'You just had to be there first to get them done' (P32/Senior Trainee/Ireland). These inefficient processes were perceived as having a ripple effect throughout the hospital as patients waited for scans; '...radiology at home is a disaster...people waiting days for scans...' (P26/Junior Doctor/Ireland). Accessing CT scans in Australian hospitals was described as a much smoother process. Participants noted how investment in integrated electronic systems had turned the process of ordering a scan into 'a few clicks' (P45/Senior Trainee/Australia); subsequently, '...scans get done quicker, people get seen quicker' (P18/Junior Doctor/Australia). These resources had implications for participants' experience of their role as a doctor as they felt they spent more of their time making and managing clinical decisions in Australian hospitals.

Discussion

The organisation of medical work and hospital doctor migration

Ireland presents a strong case example of how health systems, working conditions, and hospital doctor migration are intricately connected (2, 3, 20) with push factors increasingly shaped by work experiences rather than career prerequisites (4, 5, 16). Representing a closed loop of deterioration, hospital doctor emigration is shaped by strained working conditions, which are themselves shaped by doctor emigration and the subsequent impact on the workforce. The findings add to Humphries et al.'s recent paper on extreme working conditions as a driver of doctor emigration from Ireland (5), by using a more comparative approach to distinguish the organisational features of medical work which shape both the extreme conditions in Ireland, and the contrasting experiences of medical work in Australia. Surveys of hospital doctors in Serbia, China, Poland, and Germany (19-21, 41) highlight the link between job dissatisfaction and intentions to leave or migrate, with dissatisfaction

associated with poor organisational environments and management practices. We build on these quantitative studies by qualitatively exploring the resources, relationships, and tasks which connect the organisation of medical work, contrasting micro-level experiences, and the migration decisions of hospital doctors. Understanding these connections better can inform more sustainable working practices for doctors, medical workforce retention, and more generally, the development of more effective health workforce policies.

Highlighting the strained working conditions which play an important role in the Irish health system's difficulties with doctor retention, the disparity in experience for participants working in Irish and Australian hospitals derived from a contrast in the organisational features of medical work: medical hierarchy; staffing, support and supervision; and governance and task coordination (Table 3).

Table 3: The Organisational Features of Medical Work

	Professional	Staffing,	Governance	
	Relations &	Support &	& Task	
	Communication	Supervision	Coordination	
IRELAND	Hierarchical	Low	Low	
AUSTRALIA	Non-hierarchical	High	High	

These organisational features of medical work (Table 3) did not function in isolation and were to some extent self-sustaining. Hierarchical professional relations in Irish hospitals (40) were reinforced by low staffing and support, and low governance and task coordination. Work appeared to be structured primarily by the roster, individualised task prioritisation, and intra- and interprofessional hierarchies. The flatter professional hierarchy of Australian

hospitals coincided with higher staffing and support levels and a range of formalised coordination mechanisms which facilitated intra and inter-professional collaboration. Participants implicitly drew on these contrasting, yet mutually reinforcing, features to explain their experiences of core practices (e.g. CT scan) and emphasise the conditions which inhibited or facilitated their ability to be a doctor i.e. manage, and make decisions around, patient care. It is worth reiterating that participants did identify some challenges in Australian hospitals also, however their contrasting of experiences working in different health systems drew out key features of concern. The organisation of medical work – which connects macrohealth systems, the frontline experience of acute care delivery, and subsequently the push/pull factors of doctor emigration – is powerfully shaped by the institutional context in which it is embedded.

Policy implications

Comparing the experiences of hospital doctors in two different health systems, the paper adds to the literature by drawing out the features of medical work (Table 3) which make up the 'organizational coherence of the health care system' (22) and shape the relationship between working conditions and job satisfaction (7, 19, 20), migration decisions (5, 18), and burnout (22, 24). The findings show how a deeper, more qualitative understanding of the connections between the i) organisational structures; ii) work experiences, and; iii) career decisions of hospital doctors can help identify the key areas of concern to ensure more effective health workforce management and retention policies. To be effective, policies to encourage doctor retention must improve the quality of doctors' work experience rather than solely focus on supply side measures (i.e. recruiting more internationally trained doctors). In line with recent literature, the findings emphasise the importance of hierarchy, communication, staffing, and

task coordination to improve doctors' experience of work (7, 20). Working conditions which facilitate more realistic environments for teamwork and collaboration require policies which acknowledge local organisational contexts (8). These are conditions which have important implications for the efficient and effective use of doctors' time and, as such, provide a contextualised understanding of the interdependent factors which shape hospital doctors' perceptions of their ability to deliver patient care.

Managing doctor emigration is critical for ensuring effective and sustainable health workforce planning (12, 42). Doctor shortages can hinder the delivery of efficient, high-quality healthcare and lead to strained conditions and additional workload burdens for hospital doctors. At present there is a significant shortage of consultants within the Irish health system (28). Policy levers used to address high rates of doctor migration have predominantly focused on supply side measures, i.e. increasing the supply of medical graduates and/or international recruitment of doctors (26, 27, 31). While important, such approaches conflate issues of labour supply (workforce) and retention (working conditions). Promoting the retention of hospital doctors requires looking beyond recruitment to the organisational contexts which lead to strained working conditions and the failure to retain doctors. At a time of significant health system reform in Ireland (11), an effective retention policy requires an understanding of the types of work contexts in which doctors thrive, survive, or seek an exit (5, 32).

Conclusions

This paper compares Irish-trained hospital doctors' experience of medical work in two different contexts – Ireland and Australia. The findings highlight how the organisation of medical work shaped their contrasting work experiences. Health system contexts matter for the creation and reproduction of working conditions which impact on the sustainability of

medical workforces. Effective retention policies must be informed by the link between organisational contexts and working conditions which underpin strained work experiences and migration decisions. This requires an acknowledgement of the important role played by the qualitative experience of work, rather than solely focusing on supply side measures to solve the medical workforce crisis. Researching the experience of doctors in the system, rather than just the numbers making up the system, is key to improving understanding of how the system impacts on the frontline and therefore developing a better policy response.

References

- 1. Cronin F, Clarke N, Hendrick L, Conroy R, Brugha R. The impacts of training pathways and experiences during intern year on doctor emigration from Ireland. Human Resources for Health. 2019;17(1):74.
- 2. Beech J, Bottery S, Charlesworth A, Evans H, Gershlick B, Hemmings N, et al. Closing the gap: key areas for action on the health and care workforce. London; 2019.
- 3. Medical Council of Ireland. Medical Workforce Intelligence Report: A Report on the 2016 and 2017 Annual Registration Retention & Voluntary Registration Withdrawal Surveys. Dublin; 2019.
- 4. Humphries N, McAleese S, Matthews A, Brugha R. 'Emigration is a matter of self-preservation. The working conditions . . . are killing us slowly': qualitative insights into health professional emigration from Ireland. Human Resources for Health. 2015;13(1):35.
- 5. Humphries N, McDermott AM, Conway E, Byrne JP, Prihodova L, Costello R, et al. 'Everything was just getting worse and worse': deteriorating job quality as a driver of doctor emigration from Ireland. Human Resources for Health. 2019;17(1):97.
- 6. Humphries N, Connell J, Negin J, Buchan J. Tracking the leavers: towards a better understanding of doctor migration from Ireland to Australia 2008–2018. Human Resources for Health. 2019;17(1):36.
- 7. Janus K, Amelung VE, Gaitanides M, Schwartz FW. German physicians 'on strike' shedding light on the roots of physician dissatisfaction. Health policy. 2007;82(3):357-65.
- 8. Reeves S, Lewin S. Interprofessional collaboration in the hospital: strategies and meanings. Journal of Health Services Research & Policy 2004;9(4):218-25.
- 9. Rugulies R, Aust B. Work and mental health: what do we know and how can we intervene? 2019;Scandinavian Journal of Work, Environment & Health(6):529-32.
- 10. Burke S, Thomas S, Barry S, Keegan C. Indicators of health system coverage and activity in Ireland during the economic crisis 2008–2014 From 'more with less' to 'less with less'. Health Policy. 2014;117(3):275-8.
- 11. Burke S, Barry S, Siersbaek R, Johnston B, Ní Fhallúin M, Thomas S. Sláintecare A ten-year plan to achieve universal healthcare in Ireland. Health Policy. 2018;122(12):1278-82.
- 12. Bidwell P, Humphries N, Dicker P, Thomas S, Normand C, Brugha R. The national and international implications of a decade of doctor migration in the Irish context. Health Policy. 2013;110(1):29-38.
- 13. Ognyanova D, Busse R. A destination and a source: Germany manages regional health workforce disparities with foreign medical doctors. In: Wismar M, Maier C, Glinos I, Dussault G, Figueras J, editors. Health Professional Mobility and Health Systems: Evidence from 17 European countries. WHO: Copenhagen.: European Observatory on Health Systems and Policies; 2011. p. 211-41.
- 14. Brugha R, McAleese S, Humphries N. Ireland: A Destination and Source Country for Health Professional Migration. Dublin; 2015.
- 15. García-Pérez MA, Amaya C, Otero Á. Physicians' migration in Europe: an overview of the current situation. BMC health services research. 2007;7(1):201.
- 16. Humphries N, Crowe S, McDermott C, McAleese S, Brugha R. The consequences of Ireland's culture of medical migration. Human Resources for Health. 2017;15(1):87.
- 17. Gouda P, Kitt K, Evans DS, Goggin D, McGrath D, Last J, et al. Ireland's medical brain drain: migration intentions of Irish medical students. Human Resources for Health. 2015;13(1):11.

- 18. Humphries N, McDermott AM, Creese J, Matthews A, Conway E, Byrne J-P. Hospital doctors in Ireland and the struggle for work–life balance. European Journal of Public Health. 2020;30(Supplement 4):iv32-iv5.
- 19. Gacevic M, Santric Milicevic M, Vasic M, Horozovic V, Milicevic M, Milic N. The relationship between dual practice, intention to work abroad and job satisfaction: A population-based study in the Serbian public healthcare sector. Health Policy. 2018;122(10):1132-9.
- 20. Domagała A, Dubas-Jakóbczyk K. Migration intentions among physicians working in Polish hospitals Insights from survey research. Health Policy. 2019;123(8):782-9.
- 21. Lu Y, Hu XM, Huang XL, Zhuang XD, Guo P, Feng LF, et al. The relationship between job satisfaction, work stress, work-family conflict, and turnover intention among physicians in Guangdong, China: A cross-sectional study. BMJ Open. 2017;7(5).
- 22. Panagioti M, Panagopoulou E, Bower P, Lewith G, Kontopantelis E, Chew-Graham C, et al. Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis. JAMA Internal Medicine. 2017;177(2):195-205.
- 23. Health Service Executive. Improving People's Health and Wellbeing: Health Service Executive Annual Report and Financial Statements 2018. Dublin; 2019.
- 24. Hayes B, Prihodova L, Walsh G, Doyle F, Doherty S. Doctors don't Do-little: a national cross-sectional study of workplace well-being of hospital doctors in Ireland. BMJ Open. 2019;9(3):e025433.
- 25. Humphries N, Morgan K, Catherine Conry M, McGowan Y, Montgomery A, McGee H. Quality of care and health professional burnout: narrative literature review. International Journal of Health Care Quality Assurance. 2014;27(4):293-307.
- 26. Humphries N, Tyrrell E, McAleese S, Bidwell P, Thomas S, Normand C, et al. A cycle of brain gain, waste and drain a qualitative study of non-EU migrant doctors in Ireland. Human Resources for Health. 2013;11(1):63.
- 27. Brugha R, Cronin F, Clarke N. Retaining our Doctors: Medical Workforce Evidence, 2013-2018. Dublin; 2018.
- 28. Public Service Pay Commission. Report of the Public Service Pay Commission: Recruitment and Retention Module 1. Dublin; 2018.
- 29. Department of Health. Report of the Independent Review Group establised to examine Private Activity in Public Hospitals. Dublin; 2019.
- 30. Department of Health. Strategic Review of Medical Training and Career Structure. Dublin; 2014.
- 31. Department of Health. Strategic Review of Medical Training and Career Structure: Tenth Progress Report February 2019 July 2019 Dublin; 2019.
- 32. Hoff T, Whitcomb WF, Nelson JR. Thriving and Surviving in a New Medical Career: The Case of Hospitalist Physicians. Journal of Health and Social Behavior. 2002;43(1):72-91.
- 33. Turner B. Putting Ireland's health spending into perspective. The Lancet. 2018;391(10123):833-4.
- 34. OECD Health Statistics 2019; June 2019 [Internet]. 2019 [cited 17 October 2019.]. Available from: http://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_REAC
- 35. OECD. OECD Indicators: Health at a Glance 2019. Paris; 2019.
- 36. Health Service Executive. National Doctors Training & Planning: Review of the Emergency Medicine Medical Workforce in Ireland. Dublin; 2017.
- 37. World Health Organisation. Everybody's Business: Strengthening Health Systems to Improve Health Outcomes. WHO's Framework for Action. . Geneva: WHO; 2007.
- 38. Tavory I, Timmermans S. Abductive analysis: Theorizing qualitative research. Chicago: University of Chicago Press; 2014.

- 39. Dey I. Qualitative Data Analysis: a user-friendly guide for social scientists. London: Routledge; 1993.
- 40. Crowe S, Clarke N, Brugha R. 'You do not cross them': Hierarchy and emotion in doctors' narratives of power relations in specialist training. Social Science & Medicine. 2017;186:70-7.
- 41. Janus K, Amelung VE, Gaitanides M, Schwartz FW. German physicians "on strike"—Shedding light on the roots of physician dissatisfaction. Health Policy. 2007;82(3):357-65.
- 42. van der Pol M, Scott A, Irvine A. The migration of UK trained GPs to Australia: Does risk attitude matter? Health Policy. 2019;123(11):1093-9.