BMJ Open Does perceived organisational support influence career intentions? The qualitative stories shared by UK early career doctors

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ABSTRACT

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Ms Gillian Marion Scanlan; r01gms15@abdn.ac.uk **Introduction** The wish to quit or take time out of medical training appears to be related, at least in part, to a strong desire for supportive working and learning environments. However, we do not have a good understanding of what a supportive culture means to early career doctors, and how perceptions of support may influence career decision making. Our aim was to explore this in UK Foundation doctors.

Methods This was a qualitative study using semistructured interviews incorporating a narrative inquiry approach for data collection. Interview questions were informed by the literature as well as data from two focus groups. Interviews were carried out in two UK locations. Initial data coding and analysis were inductive, using thematic analysis. We then used the lens of Perceived Organizational Support (POS) to group themes and aid conceptual generalisability.

Results Twenty-one interviews were carried out. Eleven interviewees had applied for specialty training, while ten had not. Support from senior staff and colleagues influenced participants' job satisfaction and engagement. Positive relationships with senior staff and colleagues seemed to act as a buffer, helping participants cope with challenging situations. Feeling valued (acknowledgement of efforts, and respect) was important. Conversely, perceiving a poor level of support from the organisation and its representatives (supervisors and colleagues) had a detrimental impact on participants' intentions to stay working within the National Health Service (NHS). Conclusion Overall, this is the first study to explore directly how experiences in early postgraduate training have a critical impact on the career intentions of trainee/ resident doctors. We found perceived support in the early stages of postgraduate training was critical to whether doctors applied for higher training and/or intended to stay working in the NHS. These findings have transferable messages to other contexts struggling to recruit and retain junior doctors.

INTRODUCTION

Early medical careers decision making is a complex process that involves balancing job-related factors such as location of the post, working conditions and personal factors such as 'fit' with a specialty or close proximity

Strengths and limitations of this study

- This study used a narrative inquiry approach to capture meaningful and purposeful stories that would resonate with readers and thus not lose critical elements of the experiences of early career doctors.
- Interviews were carried out with F2 doctors during their foundation programme; therefore, the experiences and stories shared were in direct observation to their working and learning environment and thus were not in danger of recall bias.
- It builds on the existing literature that directly relates to factors that influence career decision making of early career doctors and addresses the limitations of previous work by using the social theory of Perceived Organizational Support as a theoretical conceptual framework to provide deeper insight and the use of semistructured interviews to gain thorough understanding of this phenomenon.
- It is limited as we only interviewed F2 doctors from Scotland, and perhaps the views of those in Scotland may not be representative of those from the rest of the UK.

to family and friends.¹⁻⁴ There is increasing evidence that prior workplace experiences are important in careers decision making,⁵ most obviously in terms of a clear relationship between exposure to a specialty and later preference for that speciality.⁶⁻⁸ Contemporary evidence suggests that early career doctors also draw on prior experience of the supportive culture, or not, of a unit/department/locality, to inform their careers decisions.² ⁹ For example, evidence from countries including Germany, the Netherlands, Australia, Finland, Canada and the USA indicate that residents/ trainees who experience a positive working culture (characterised by, e.g., high-quality training and work-related social support) are less likely to have intentions to quit medical training or to wish to move into medical jobs without patient contact.^{1 10 11} In our own context, the UK, there is a recent pattern of a large proportion of early career doctors not applying for specialty training at the time when they become eligible to do so. Instead, approximately 50% of doctors at this stage are taking time out of the training system. The majority of those who take time out of training continue to work in the National Health Service (NHS) but in service posts (posts that are not part of a training programme towards a particular specialty). Why this trend has become more obvious in recent years is of considerable interest to NHS employers, institutions responsible for medical education and training as well as researchers.

Recent studies suggest that the wish to quit or at take time out of medical training may be related, at least in part, to a strong desire for supportive working and learning environments.^{4 12 13} UK Foundation Year 2 (FP2) doctors (these doctors form part of a generic two -year vocational training programme that bridges the gap between medical school and specialty/core training) who experience pressurised working environments with poor autonomy over their personal and work life report reductions in morale and motivation and feelings of dehumanisation. However, the nature of this previous research—predominantly survey-based^{10 11 14 15} or descriptive qualitative inquiry¹²—means we do not have a good understanding of what a supportive culture means to early career doctors. Nor do we know how their perceptions of support or sources of dissatisfaction may impact on their career decision making.

It is critical to explore these issues in detail as identifying ways to increase satisfaction with medical training may help stem issues with uneven distribution of doctors in terms of specialty and location^{16–19} and help attract sufficient doctors to apply for training posts and hence meet anticipated immediate and future healthcare needs.^{20 21}

Our aim in this study was to explore FP2 doctors' work-related experiences in relation to workplace support and how this may have influenced their careers intentions. To extend understanding of this phenomenon and bearing in mind that using orienting concepts derived from social theory can enhance knowledge, understanding and interpretations that might not be identified using inductive approaches,²² we used the theory of Perceived Organizational Support (POS)^{23 24} as a theoretical framework to aid conceptual generalisability and to highlight possible ways forward for medical education and employment policy and practice.

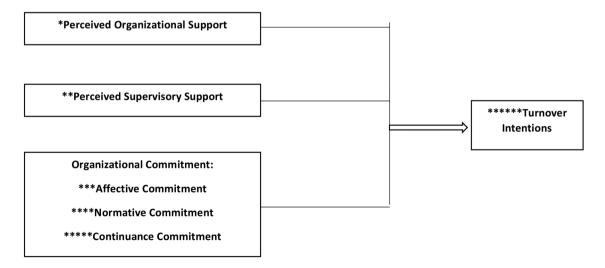
METHODS

Conceptual Framework

POS is the relationship resulting from the reciprocal exchanges²⁵ between an employee and the organisation.²³ POS relates to an individual's perception of whether the organisation values their work contributions and cares about their well-being.^{23 24} Where employees perceive that the organisation values and supports them, they will develop greater emotional attachment, engagement^{26 27} and feelings of obligation to the organisation.^{28 29} This, in turn, is positively related to a range of employee behaviours^{30 31} including intention to stay with the organisation,³²⁻³⁴ job satisfaction,^{31 35} dedication^{34 36} and commitment to the organisations goals.^{15 29 36}

Commitment

POS suggests that reciprocity between employee and organisation can be expressed and evaluated as three inter-related types of commitment: affective, normative and continuance (see figure 1). Affective commitment



^{*} The Perception of support an organization has for their employees. ** The Perception of how much senior support an employee has within an organization. *** The emotional investment and dedication/attachment an individual has towards an organization. **** This component considers the morale conscious of employees particularly their obligation to stay working in the organization. **** The advantages and disadvantages of leaving an organization. **** Whether an employee will stay or leave an organization.

Figure 1 The Theory of Perceived Organizational Support and its components.

refers to an individual's emotional attachment to the organisation and is linked to the individual and the organisation's goals, values and norms being similar or in alignment.³³ If an individual has a high level of affective commitment to the organisation, then they are more likely to be satisfied with their job and may be more likely to stay with that organisation.^{31 34 36 37}

Normative commitment is the level of obligation and sense of loyalty an employee feels towards the organisation. This is related to individuals feeling acknowledged and rewarded by (via, e.g., promotions and incentives),^{28 38} and hence indebted to, the organisation that again may be demonstrated by wishing staying in the employment of that organisation. In other words, if an individual feels their organisation has shown commitment to them, they are more likely to show commitment to the organisation and vice versa.^{33 34}

The third and final level of commitment is continuance commitment. This is associated with employees evaluating the advantages and disadvantages of continuing to work for the organisation versus leaving the organisation.^{14 31} Are they guaranteed better opportunities somewhere else, or are there too many risks associated with leaving?

The three levels of commitment are not separate entities. Rather they overlap and link with one another. For example, if an individual develops an emotional attachment and dedication to the organisation (affective commitment), and the organisation has recognised and rewarded their efforts, they may have a sense of loyalty to the organisation (normative commitment) and not wish to leave (continuance commitment) (see figure 1).

The role of others

An important concept in POS is that any actions undertaken by other people within the organisation are perceived by the employees as acts of the organisation rather than the individual^{32 39} (see figure 1). Perceived supervisory support (PSS)⁴⁰ is an indicator of how much the organisation values the individual, and the personification of the organisation in this way leads to employees interpreting the actions of those more senior to themselves as reflecting the norms or the values of the organisation. Where individuals do not feel fairly treated or supported by senior staff, their sense of attachment and obligation to the organisation decreases and their inclination to leave (turnover intention) increases.²⁹ However, high levels of PSS-enacted via, for example, autonomy, participation in decision making, professional development opportunities, rewards and praise^{1 10 34} may support an employee's job satisfaction, emotional attachment, obligation and intent to stay with an organisation.^{34 37 41 42}

Employees also evaluate the behaviour of team members and colleagues as personifying organisational norms and values, with the same outcomes in terms of organisational commitment as observed with senior staff.²⁸ Positive relationships with colleagues and team members are also important in another respect. These interpersonal relationships offer information about how to become a successful organisation member, as well as provide friendships that make work–life more pleasant.^{15 33 43} Having role models, support and praise from more established colleagues positively affects the organisational commitment of newcomers into an organisation.^{9 41 44}

POS has been used to explain performance, work-related stress, intentions to leave, organisational commitment and job satisfaction across a range of commercial and healthcare settings.^{15 28 33 41 44}

On scrutinising the themes in the data, we were struck that many of these seemed to relate to the relationships our participants had with the organisation in which they worked and the people they worked with. It was this that led us to use the theory of POS^{24 26 27} to help understand and explain the data identify important factors and their potential relationships.

Design

In line with our worldview meaning is constructed through social interaction, this research is epistemologically grounded in social constructionism.^{45 46} We used individual interviews to collect multiple perspectives and interpretations of reality in relation to the research question.

Sampling and recruitment

Our target group was Foundation Programme (FP) doctors in the UK. After graduating from medical school, UK doctors work in the FP for two years full time or the equivalent part-time. The FP is designed to ensure broadbased training across the breadth of specialties with compulsory surgery, medicine and a 'community' placement (eg, general (family) practice and mental health). It aims to develop the clinical and professional skills of medical graduates, so they are prepared to progress into one of the range of specialty training pathways at the end of year two of the FP. The first opportunity for application for a specialty training post is in mid-FP2, and traditionally most doctors applied at this stage of their career. However, things have changed in the last five years or so: only about half of FP2 doctors now apply for specialty or core medical training (CMT).¹⁹ CMT is a twoyear course following the FP. CMT rotations typically last between 4 6 months, and trainees rotate across various medical specialities. Trainees must successfully complete CMT and undertake the full Membership of the Royal College of Physicians (UK) Diploma in order to apply for third year specialty training.

However, some training programmes allow trainees to go straight into specialty or general practice training after completion of the FP. These are typically referred to as run-through programmes. The length of training and structure varies between specialities; training can last between 3-8 years depending on the specialty. The others typically either take up a service post as mentioned earlier, work overseas for a period of time or leave the profession. The organisation of UK medical training means that this change in careers-related behaviour leaves many unfilled posts, insufficient doctors to meet immediate healthcare needs and a potential shortfall of specialty-trained doctors in the longer term.^{20 21}

On receiving ethical approval and appropriate institutional consents (see later), FP2 doctors from two of the five Scottish FP regions were invited to participate in individual interviews. These regions are diverse in terms of size and geographical locality and because local data indicates that they attract different groups of FP doctors in terms of home origin and medical school attended.

FP coordinators from the two regions sent out an email giving details of the study and the researcher's contact details to the 2015–2016 cohort of FP2 doctors. Those who were interested in taking part in the study were asked to contact the main researcher directly by email. Those who did so were provided with more information about the study and invited to take part.

Patient or public involvement

No patients or any members of the public were involved in this study.

Data collection

This study used semistructured interviews incorporating a narrative inquiry approach for data collection.⁴⁷ The interview schedules explored FP2 doctor's experiences of their postgraduate training and how this influenced their career intentions. The interview questions were developed by drawing on the broad literature on medical careers decision making, particularly contemporary papers from the UK context.²⁻⁴⁹ We also drew on discussions on this topic arising in formal teaching sessions with FP doctors in the 12 months prior to data collection. The questions were piloted with a small group of volunteer FP doctors who did not take part in the main study. Our approach was iterative: we used our notes and recordings from early interviews to inform the development of additional questions for later interviews. The interview schedule is available on request.

In order to elicit as broad a range of understandings as possible, maximum variation sampling was used to ensure diversity in terms of gender, graduate entry or schoolleaving status as a medical student, ethnicity, location and whether the individual had applied for a training post in FP2 or not. Individual interviews were carried out at times and places convenient for participants. Participants were provided with refreshments but no other incentives for taking part. At the end of each interview, participants were thanked for taking part.

Data Analysis

All interviews were audio-recorded with participant permission, transcribed for analysis and entered onto NVivo Pro V.11 qualitative data management software. Familiarisation and data checking were achieved by listening to audio-recordings while reading transcripts. Thoughts and insights were recorded as a memo file for each doctor. Initial data coding and analysis was inductive, using thematic analysis to generate a coding scheme.⁴⁸ Analysis progressed via regular team meetings, where ongoing coding and comparisons were explored. Comparisons were made between codes and participants to explore differences and similarities in participants' perspectives. Any discrepancies were discussed and then agreed upon. Analytical ideas and discussions were documented through memos and team correspondence that created an audit trail of the analytic process. As discussed earlier, after inductive coding, we used POS as an analytic framework.

Rigour was ensured in several ways.⁴⁹ All interviews were undertaken by the first author (GMS) to ensure continuity. We considered our positions and relationships with the data continually and critically^{50 51} in view of our different disciplinary backgrounds (psychology, pharmacy; and medicine), different levels of knowledge and experience of delivering and managing medical education and training and research perspectives and preferences. We constantly reflected on how these might have shaped our coconstruction of the data. Preliminary data analysis was shared and discussed with colleagues outside the research team to explore if the findings seemed credible and reasonable.⁵² The main researcher was a PhD candidate; thus, this study was part of a larger doctoral research project that aimed to explore the working and learning environments of F2 doctors and their career intentions.

ETHICAL APPROVALS

The host University granted ethical approval. This was accepted as evidence of ethical approval by the second site's equivalent board. Approval and permission to carry out the study were also obtained formally from the relevant NHS Research and Development (R&D) departments. Written consent was obtained from all participants.

RESULTS

Twenty-three FP2 doctors expressed an interest in study participation. Two were not available for interview during the period of the study (January-April 2016). Of the 21 who participated, eight were from region A and 13 were from (the larger) region B; 13 were female, eight were male; 17 had entered medical school directly from high school (the norm in the UK), while four were graduate entrants; 13 were born and raised in Scotland, six were born and raised elsewhere in the UK and two were from mainland Europe. Most were of White British ethnicity. Their ages ranged from 25 years to 35 years old. Of those interviewed, 11 had applied for specialty or core training in FP2. They had applied to a range of hospital and community specialties, including Anaesthetics, General Practice, Psychiatry and Core Training.

The median interview length of interviews was 30.26 min (from 18 min to 52 min).

Our initial framework analysis identified the main themes captured in the data from across the participant group. These were: positive supervisory support, poor supervisory support, team environment and feeling valued. We then used the POS theory to interpret and organise the data. This worked effectively vet we felt that presenting the data thematically failed to illustrate the critical experiences of our participants.^{53 54} Instead, and with reference to Kendall and Kendall's⁵⁵ view that 'the whole story is greater than the sum of its parts' (p. 179), we present the data as the stories told by participants to the researcher.⁵⁶ This allowed us to explore the multiple dynamics of workforce relationships and experiences and related decision making.⁵⁷ We chose five stories that exemplified the main themes well, where participants lay out how they experienced certain events and conferred their subjective meaning onto these experiences.

We provide personal background characteristics for each story told,⁵⁸ to give the reader a deeper knowledge and understanding of each person's story.⁵⁵ We present participant's key stories in their own words.⁵⁹

Story 1: 'I think senior support at time was a huge factor for us...'

In this first story (see **box 1**), Daniel (please note all names are pseudonyms) is a male foundation doctor. He is originally from Northern Ireland but came to Scotland for medical school and stayed on to do the FP. Some members of Daniel's family had worked in the healthcare sector although not directly in medicine. He worked in various part-time and volunteer jobs during his medical degree. Daniel lives with his long-term girlfriend who is also a foundation doctor. Daniel had a particularly positive experience throughout his time on the FP; the most noteworthy experience for him was his experience in his Accident and Emergency (A&E) rotation. In box 1, we see clear examples of how feeling supported and feeling valued played a key role in influencing Daniel's decision to apply for specialty training.

In this story, we can identify that Daniel's experience of a positive working culture impacts both his commitment to the organisation and the perception of support that would be available in the future. This is evidenced when Daniel explains that he has applied for Anaesthetics training and indicates one reason for applying is related to the level of support that he will gain in this particular specialty (lines 18–22). We can infer from Daniel's story that, for him, a supportive working environment is based on a culture that is enriched with 'enthusiastic' supervisors who are willing to 'take an interest' in the professional careers of FP2 doctors and that helps to really 'make it' an enjoyable experience (lines 9–13). Daniel's story has emotional elements too, as he describes 'feeling valued', and this influences his commitment to the organisation and motivates him to apply for anaesthetics (lines 9 and 10).

Box 1 Daniel's Story

¹I think senior support at times was a huge factor for us, particularly in A&E. I'm never on shift without somebody² who's at least a senior registrar or a consultant. So I've never, ever had any issues. Sometimes getting them it's a³ little bit difficult but it's just the nature of the job... they are probably seeing a patient, but I just go in and grab⁴ them and call them out if I need⁴ them, you know. So if I need access to them.

⁵When I went to A&E, my educational supervisor in A&E, **she's very proactive. She's super**. We did a lot of⁶ discussion around how I manage patients, so she'll call the patients up that I've seen X number of weeks ago, and⁷ we go through and look at my documentation, see how I managed it. And it's not criticising me. I mean if it is⁸ critical, it's constructive criticism. **So I think that's a huge, huge aspect of learning as a junior.**

⁹And that's the first time I've had a supervisor that has been that **enthusiastic, and that makes a hell of a**¹⁰ **difference** ... She even creates opportunities for you... **And then that leads into feeling valued.** ¹¹SP1: Difference that you feel more supported I take it?

¹²SP2: Yeah. **She even creates opportunities for you**. She'll go out of her way to sort things. I got a taster week¹³ in... Anaesthetics I got, long term advanced trauma life support. **If they take an interest in you it makes it**...

¹⁴SP1: So you've obviously mentioned getting; cracking on and getting on with it. So you've applied for specialty¹⁵training or core medical training at FY2?

¹⁶SP2: Yes, I applied for anaesthetics.

¹⁷SP1: Anaesthetics, okay. And why were you attracted to anaesthetics? ¹⁸SP2: I've done it and I liked it... When you see what they do and how they... **How well-supported they are as a**¹⁹ **junior**. So they're probably the best trained in terms of consultants with juniors. **So you're oneon-one, junior**²⁰ **and consultant most of the time as an anaesthetic trainee.** The training you get is... You know, they're able to²¹ deal with nearly everything, in terms of managing patients. That's what attracted me to it as well is **the quality of**²² **training you're going to get**. ²³CP1: The quality and the kind of support that you're getting as well?

²³SP1: The quality and the kind of support that you're getting as well?
²⁴SP2: Yes, **exactly**.

In terms of POS theory, Daniel may attribute the acts undertaken by his supervisor as evidence of the level of investment and value the organisation places on his personal and professional development.^{15 32} The level of investment that the senior member of staff demonstrated in Daniel's A&E rotation helped to convey the future behaviours that would be present in the NHS which enabled him to recognise attributes of supervisors which would enhance his own future working conditions and made him feel more invested in a specialty that offers a high level of '**one-on-one**' training with seniors. Overall, this story illustrated the key influence a positive clinical supervisor–employee relationship can have on an early career doctor's intentions to stay working in the NHS.

Story 2: 'Having done that, I knew that was what I wanted to do and so I applied...'

In this second story, Steven is a male foundation doctor. He is originally from England and did his medical degree there as a graduate entrant. He moved to Scotland for the FP. He worked part-time throughout both his degrees.

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He comes from a non-medical family and a working-class background. Steven had a girlfriend from Scotland who was pursuing a non-medical degree within Scotland. Steven explains a critical point in his F2 programme, which helped him develop sufficient confidence to apply for specialty training (box 2).

Steven's story highlights the importance of having seniors who want their junior members of staff to flourish in their working environment. He remarks he could have '**easily been given rubbish tasks to do**' but instead received good training opportunities (lines 1 and 2). From the very beginning of his FP2, Steven feels like a valued member of the team and that seniors are eager for him to learn on the job.

The timing of his anaesthetics rotation was critical. Steven reflects that without the direct experience of working in anaesthetics and being able to compare it with his other FY experiences, he would have not known that this specialty would **'fit'** him in terms of his personality and what he enjoyed in the workplace (lines 6–9 and lines 16–19).

Having the support from 'different consultants' played a critical role in Steven applying for acute care common stem training programme (three-year programme that covers acute specialities including anaesthesia, emergency medicine, acute medicine and intensive care (ACCS)) (lines 20–22 and lines 26–28). The level of commitment that was shown by the seniors was perhaps a direct indicator to Steven that his professional development and well-being would be looked after if he trained in anaesthetics within the NHS (lines 40 and 41).

When viewed through the POS lens, it seems that Steven's level of obligation to the organisation.²⁸ ²⁹ It seems that Steven's level of obligation was influenced by both feeling valued³⁴ and perceiving that senior members of staff had invested a great amount of time and energy to ensure that he gained important opportunities prior to applying for specialty training.¹⁵ These positive encounters seemed to influence his intentions to not take a year out of training but to apply for specialty training in FY2.

Story 3: 'I really, really wanted to do it. I've always wanted to be a doctor. And I got here, and I've just found it devastating'

In this third story, Abigail is a female FP2 doctor. She is originally from England and did her medical degree there before moving to Scotland for the FP. The FP was her first experience of working life. She comes from an affluent, medical family background. She is single and living alone. The FP was not a positive experience for her and she did not apply for specialty training (box 3).

Abigail reflects that she found the FP disappointing on a personal and professional level, which ultimately affected her morale and commitment to the NHS (lines 1 and 2). Abigail goes on to highlight how she was 'very' disheartened by the NHS and never expected to be 'treated so badly as a professional'. She expressed feeling mistreated and not feeling welcomed by team members (lines 5–11 and lines 17 and 18). This

Box 2 Steven's Story

¹... when I got out I was actually doing the job because I could have easily just been given rubbish tasks² to do for 4 months but I was encouraged to take part and work with a wide variety of consultants, see³ how they worked and becoming, like, familiar.

⁴I felt much more confident, at the end of the four months, that I could assess, you know, intensive care⁵ patients and make basic decisions. Nothing fancy but at least hold the fort for like an hour or so.

⁶Having the opportunity to do intensive care and anaesthetics as my first FY2 job which... because I^7 was interested in it and I was given that by the programme director; he organised that, so I had⁸ experience in that before I applied, which I was very grateful for. Having done that I knew that was⁹ what I wanted to do and so I applied.

¹⁰So I was very much still thinking do I want to go down the emergency medicine route, do I want to go¹¹ down, you know... I want to do intensive care. Anaesthetics is interesting but I didn't think I want to do¹² it. Didn't get an A and E job but I got an intensive care job and then, I think, as I met the people with¹³ the emergency medicine doctors; I learned a bit more about how I liked to work...I think people talk¹⁴ about personalities and I thought maybe my personality wasn't actually quite aligned to emergency¹⁵ medicine but I really enjoyed anaesthetics.

¹⁶I got to work with the anaesthetist and thought actually I could fit in here and that's an opportunity I¹⁷ might not have had and if, say, anaesthetics... No say ICU would be my last job, I might not have been¹⁸ so confident. Even if I'd done it as FY2 but we're starting it in April instead of August. I might not have¹⁹ been confident; I might have taken it...

²⁰SP1: So that almost shaped your decision then if you say that happening even shaped your decision to²¹ have the confidence to do that? ²²SP2: Yeah, yeah, I might have waited another year to do that instead of I'll see how I find it at the end²³ of the year. I'll take the year out locum and then apply once I know what I want to do. It's difficult to²⁴ know what I would if things had been different.

²⁵I remember talking to friends and I'd always... As I said, I thought I wanted to do an acute specialty,²⁶ maybe emergency medicine, maybe intensive care, and I'd enjoyed anaesthetics. I was so well²⁷ supported by all the different consultants and I enjoyed the hands on... You know, it felt right and²⁸ having the opportunity to do that I knew that this is what I want to do. I've been asked, as I'm sure²⁹ every junior doctor or medical student is asked for a few years, what kind of doctor do you want to be?

³⁰I never had an answer and it was really August, **and it came quite suddenly, it was kind of like it's a³¹ lightbulb moment because just thinking a year ago I was still between two or three specialties. As**³² **soon as I did that I was like, yeah, I'll do this**. This is great; I can be an anaesthetist... This is what I³³ enjoy which some people go to medical school knowing they want to be a specific type of surgeon or a³⁴ GP. It took me until I was actually doing that job as a FY2 to say this is for me.

³⁵SP1: So would it be fair to say almost that positive experience of getting an opportunity to practice...³⁶ almost helped along that pathway as well with prior to making a decision.

³⁷SP2: Definitely. As I said I might not have applied to [ACCS] training...

³⁸SP2: Yes, for the next... Well, if I get to retire. **That... It's a decision that I don't think I would've made**.³⁹ Actually thinking back to making that decision, knowing how confident I was that I enjoyed⁴⁰ anaesthetics; it still felt like a big thing to click that button and apply for that job. I most definitely⁴¹ wouldn't have done that if I hadn't had that experience in anaesthetics.

Box 3 Abigail's Story

¹Yeah, so as a whole, I found the foundation experience really disappointing. I've not enjoyed it all as a² profession, or as a job. I felt that you're extremely undervalued as an individual, and as a professional.

³And there's huge neglect of training for foundation doctors, especially at FY1 level. I don't think that⁴ you're respected or considered to be a practising clinician.

⁵I think there's not much in **the way of recognition for the work that you do**. And I think that you do a lot⁶ of legwork for a lot of other people. And people aren't very thankful of that.

⁷I don't think that you're treated well by other members of healthcare professionals within the teams.⁸ And that makes your role feel devalued as well. You feel devalued in that sense that other people⁹ don't treat you very nicely at all.

¹⁰As a whole...as a whole it's really, I found it very disheartening. And I had never expected to be treated¹¹ so badly as a professional. ¹²Bearing in mind that this is your first ever experience of a job. And often, medical students or medics¹³ don't necessarily work much before they go to university. This is the first time you ever experience¹⁴ working life. And those that work within the institution should know better that it's a very, very difficult¹⁵ job.

¹⁶And that on the whole, they're treated very badly. But I don't think that makes any difference. And I¹⁷ don't think it means that people make any effort at all to be inviting, to be encouraging, to be¹⁸ supportive of the fact that you are a young professional that has no experience working in a¹⁹ professional environment. And I think that was one of the biggest things that I found so difficult.

²⁰I don't think if you went to any other institution, any other organisation, anywhere as a professional,²¹ or in any other business they would make you feel crap in the first... You know, having that first²² experience, you know, I mean, you know what I mean to work somewhere in the first year.

²³You just feel totally disengaged, and very down trodden. And you feel undervalued.

²⁴I found it really disappointing. Like, I've spent years training to do this job. And I really, really wanted²⁵ to do it. I've always wanted to be a doctor. And I got here, and I've just found it devastating. I've²⁶ really been so disheartened, and just put off with the profession as a whole just because the way in²⁷ which the work is'.

perceived lack of support during her FP ultimately deterred Abigail from the '**profession as a whole**' (lines 24 and 25).

When evaluating Abigail's story, we can extrapolate that she feels like the NHS does not value or care about the well-being of their junior doctors. This would fit with one important concept of POS: that employees assign human-like characteristics to the organisation they work for.^{24 26 27} For Abigail, the poor treatment she receives from members of her immediate team exemplifies to her the way the whole NHS works. Thus, supervisors and established team members not treating juniors fairly can lead to low affective commitment, ultimately leading to higher turnover intentions (and conversely the research has shown this evidence: Otto and Mamatoglu³⁷; Rhoades and Eisenberger*et al*²⁷; Malik and Kazmi¹⁴).

Box 4 Gemma's Story

¹And then other times, when you have, you don't have the **senior support that you need**, for whatever² reason; they're caught up doing something else, or... And then you're, you feel out of your **depth**.³ Especially when you're SHO, and the reg is the next tier and if they're in theatre or they're with another⁴ sick patient, then you, kind of, feel a bit like you're out of your depth sometimes. Which is sometimes fun⁵ if you manage to sort it out, but sometimes a bit **overwhelming and exhausting**.

⁶I can find things quite upsetting that I probably would normally be able to deal with quite well. Things⁷ about, you know, outside of work would affect me more, or... Yes, just feel a bit... Sometimes if you've⁸ not... You've literally been at work, slept, and been at work for seven days; you've had no social⁹ interaction at all outside of work, and that also gets you down. Because, you know, you need to do, **you**¹⁰ **see friends and do fun things that will let you relax, to be able to maintain a, kind of, healthy**¹¹ **emotional state.**

¹²I did have a case, when I was in paediatrics, where I didn't feel supported at all by my seniors. In fact, ¹³ the opposite, by the consultants, and it really upset me and got me down and affected me for months, ¹⁴ so... And at the end of that, I thought, no, I don't want to. I decided to take a year out from that.

¹⁵There was a patient that became seriously unwell, that I didn't know that the baby was unwell, and then¹⁶ got, kind of, blamed for it afterwards, despite the fact that I tried to escalate it and they didn't really,¹⁷ like, want to take any kind of responsibility. And I tried to get some help and no one would come to¹⁸ help. And then I, kind of, got blamed for it and not supported through it, not debriefed or... I just, kind¹⁹ of, felt like it was my fault and then I had to kind of process it and deal with it on my own, rather than²⁰ having...

²¹We have our clinical and educational supervisors that are meant to help us through those, like, **the**²² **emotional aspects of our work**, as well as all the practical aspects of just getting through the course. But²³ it, it all, they're all consultants that take on that role, so... And obviously, every personality differs, and²⁴ everyone... **So I was just unlucky that all of the consultants there didn't really seem to care about that.**²⁵ And there wasn't anyone that I felt like I could ask.

Story 4: 'And at the end of that, I thought, no, I don't want to. I decided to take a year out from that'

This fourth story was from Gemma, a 25-year-old female Foundation doctor, originally from Wales, where she completed medical school. She moved to Scotland for the FP. She is single, and all her family and friends still live in Wales. She comes from a non-medical family but has family members who were healthcare professionals. Gemma had experience of doing some charity and voluntary work throughout her degree. Box 4 explains a critical experience Gemma had in her paediatrics rotation and how this incident had a detrimental impact on her intention to apply for training and instead opt to take a break.

Gemma reflects that she found it **'a bit overwhelming** and exhausting' when senior staff were not available to help or support her. She describes a critical incident that involves a death of an infant baby and how she is blamed for this afterwards (lines 12–16). The most difficult factor for Gemma is that she is not **'debriefed or supported through this'** and leaves her feeling responsible for a child's death (lines 17–19). This specific incident not only affected Gemma at personal level but also at a professional level as it was at end of that rotation that she 'decided to take a year out from that'.

From a POS perspective, Gemma did not experience a sense of emotional (affective) commitment from her senior members of staff at a critical time. She did not feel like the NHS cared and respected her at a professional or personal level. We can infer from Gemma's story that positive relationships with senior staff not only increase the perception of support, but they also seem to act as a buffer, which helps more junior doctors to cope with challenging situations.^{15 37 41 60} Where this is lacking, emotional obligation to the organisation is affected, which can impact on turnover intentions (as per Gemma deciding not to apply for specialty training.^{28 29 34}

Story 5: 'Management don't know who I am... I think they see that you're a hassle... as opposed to, you're a valued team member...'

The final story is told by Clare. She is from Scotland where she completed her medical degree as a graduate, before doing her FP in Scotland. She worked before and during medical school. She comes from a non-medical family, and her fiancée is non-medical. She plans to start a family within the next few years. Clare shares many challenges she experienced throughout her FP in both her professional and personal life. In box 5, she highlights a particular incident that occurred that put her off working in hospital medicine.

Clare reflects that her personal life is not something that is valued by the healthcare team and not being able to control her working hours is a source of frustration (lines 5–8). There is a sense that her annual leave is not something that is respected or valued by the management and that when Clare queries this, she is deemed '**a problem**' (lines 2–4 and lines 30–32).

Clare describes a critical experience in her neurosurgery rotation in which she felt under supported and highlights she was '**put into horrific, horrific situations**' (lines 21–24). This negative experience had a lasting impact and was influential in terms of putting Clare off working in the hospital in which she completed her F2 training: there is '**literally no way**' she would work in that hospital again (lines 27–29).

From a POS perspective, feeling valued by the organisation is a strong motivator for participants to stay invested in that organisation and vice versa (as was the case for Clare). Lack of appreciation of her personal needs (annual leave requests) led to her disengagement and reduced commitment towards working in that hospital ever again (continuance commitment: Eisenberger and Stinglhamber⁴¹; Rhoades and Eisenberger²⁷; Allen *et al*⁸³; Kaplan *et al*⁸⁵). Instead, Clare opts to apply for GP training, perhaps perceiving that this will provide better working conditions, which will illustrate that she is valued and an important member of the team.

Box 5 Clare's Story

¹Erm I think now, the longer I work for, not having any control over my annual leave, my days off, my² time off, is really starting to really annoy me. So my next rota, for example, I have just been informed,³ you have three weeks' annual leave, this is when they are, you can't swap them, you can't move them,⁴ tough. **I think that that is a disgrace.**

⁵The number of hours I have worked to be told, you're not allowed to go on a family holiday that⁶ you've booked. You're not allowed... I've been told I'm not allowed to go to a funeral before. I've been⁷ told I'm not allowed time off when I'm ill. That... I would have said, is the worst thing. I just, I don't think⁸ it's fair, and I think that bothers me more and more, I think, as time goes on.

⁹I think, particularly my, like, having been in {Community hospital} now for 12 weeks, the thought of¹⁰ coming back to X hospital...**it's horrifying. I just am dreading it. I'm absolutely dreading having to**¹¹ **come back.** And when I saw the rota... Whichever idiot person made the rota, who has never worked¹² as a doctor and has no idea what they're doing... I was almost in tears, looking, and just thinking, oh¹³ God, half nine. So, a quarter of all of my shifts, I finish at half past nine at night, which means I don't¹⁴ get home until after ten, which means I won't see my partner for the next four months. That, I just...¹⁵ That's the worst bit, I think.

¹⁶I would have said, there were certain bits that have made me think, I'm 100% positive I don't want to¹⁷ continue working in this hospital. And I would have said... My second job in the FY1 was {a surgical¹⁸ specialty}... There was meant to be two FY1s and two FY2s. The FY2s were on the registrar rota, which¹⁹ was hell on earth for them, and therefore I was the only FY1, and there were no FY2s because they²⁰ were on the reg rota.

²¹And I was put in horrific, horrific situations... there was one horrendous weekend where I had three²² people in the HDU, had sixty patients, and then I had another four beds due where I had four people²³ that were really sick with pneumonia. And I hadn't had a medical job, and I didn't know what I was²⁴ doing, and I have never in my life felt so overwhelmed, and I just... I hated it, I absolutely hated it. I²⁵ didn't get support; I'd phone the registrar to come in, they came in in the morning for an hour, did a²⁶ ward round and just left. And I was left on my own for a full weekend.

²⁷I've got GP training; I've accepted a GP position... The thought of actually having to spend any more²⁸ time in that hospital is just horrifying, but I think...So the thought of having to do six, seven years to²⁹ consultant, there's no way. There's literally no way I would do it. ³⁰Management don't know who I am, don't know what I'm about. And if I raise a concern, I think they³¹ see that you're a hassle, it's a problem, as opposed to, you're a valued team member that they think³² is worth being there. I don't, yes, I don't feel valued in that capacity.

Common themes

We also looked to identify any overlapping patterns across data which were exemplified in the five stories.⁶¹ Daniel and Steven were afforded opportunities to engage with several senior staff on a regular basis, their working environments were supportive and they gained exposure to specialities prior to applying for specialty training. However, Gemma and Abigail had very negative experiences of the FP and developed a negative personification of the organisation as a whole with a particular focus on a lack of support from team members. A lack of support during time critical situations was enough to put Clare off working in a specific hospital again and enough to put Gemma off applying for training at completion of FP2. The data suggests that support, encouragement and feeling valued underpin organisational commitment and turnover intention in FP doctors.

DISCUSSION

To the best of our knowledge, this is the first study to explore what a supportive culture means to early career doctors and how perceptions of support may influence career decision making. The data indicated that support from supervisors/senior colleagues and team members influenced organisational engagement. Having positive relationships with other staff increased the perception of a supportive culture but also seemed to act as a safeguard when challenging situations arose. The opposite was also true. Those who perceived poor senior and/or team support tended to have a negative personification of the organisation and had higher intentions to leave the NHS or opt to work in a different specialty. In short, the behaviour of people within the organisation was an indicator of whether the NHS cared and respected the individual as a member of the organisation.

Our findings align with the wider organisational literature. For example, having a high level of support from supervisors or more senior colleagues (PSS: see earlier) can lead to increased loyalty in the workplace,⁶² better job performance⁶³ and increases in psychological wellbeing,⁶⁴ as well as having a positive impact on employee retention.^{40 43 65} Indeed, PSS is becoming one of the most influential factors in predicting turnover intention: the less support from a supervisor, the more likely the employees are to leave the organisation (or specialty) and vice versa.³² However, the POS theory may have limitations in contexts such as the UK, where there is only one healthcare training provider, the NHS. In such 'monopoly' situations, there may be a less obvious relationship between continuance commitment and turnover intentions.¹⁴ However, doctors in training can still 'vote with their feet' by applying to train in a different specialty or region, take a break from training or move overseas to seek better opportunities. This represents early career doctors are taking responsible for their own career development. That they are doing so in a different way from what is expected by the training system structure, which is perfectly reasonable from an individual perspective, but is an issue for the system where trainees are integral to service delivery.

While perceptions of support varied, our data also suggested that there were differences in how participants engaged with their working environments. Different FP2 doctors interpreted what seemed to us as reasonably similar situations in different ways: as either an opportunity (to work independently) or, conversely, as a situation where they felt unsupported. This fits with theories that conceptualise learning through work as a relational interdependence of affordances (opportunities) and the readiness of the individual to engage with these opportunities (ie, how individuals respond to what is offered in the workplace).⁶⁶ For example, one relevant factor seemed to be prior work experience. For some participants, this was their first work experience. Others had held many part-time jobs while at university. The data hinted at this personal factor shaping participants' interpretations of experiences. Other external factors may also play a role in shaping foundation doctors' career decisions, for example, the need to work to pay off student debt. This requires further independent investigation and in terms of how seniors can supportively manage trainees' expectations to mitigate stressors.

We started our study without preconceptions of what we might find. The choice of theory was decided by the data when we realised that social relationships and organisational culture were key elements in our participants' stories. Interestingly, the main theoretical frameworks used in studies of work-based medical training are sociocultural views on learning.67 68 Our data directed us to organisational theory, thus providing a fresh perspective on a well-acknowledged issue and responded to calls in the literature to focus on the organisational context of postgraduate training.^{68–70} The use of a theoretical lens also allowed us to progress from knowledge gathered from previous atheoretic studies on this $topic^{26}$ ⁴¹ to provide thick description⁷¹ and conceptual generalisability,⁷² both of which are important in qual-itative research.²² Any one conceptual lens can only highlight or illuminate certain aspects of the data⁷³ and another lens may have highlighted other elements of the issue under focus. For example, we focused on what was said not how it was said.^{61 74} A useful secondary analysis of the data might explore the particular linguistic methods used by FP2 doctors when describing critical workplace experiences and how these influenced their career decision making.^{75 76}

We presented doctors' experiences as short stories in order to capture meaning and understanding in the data and ultimately not to lose key elements of participant experiences. Stories can convey the experience of one individual and make it resonate with others.⁴⁷ Through our analytical process, we took care to ensure to share our participants' stories in such a way that they convey meaning and purpose to the reader.^{61 77} While some researchers quantify qualitative data to highlight patterns within the data (eg, Schiffrin),⁷⁸ we did not do so, instead maintaining a purely qualitative approach. As mentioned earlier, we could have presented the data as themes, with supporting quotes from a wider number of participants. We tried this, but in our view, this way of presenting the data did not illuminate clearly the relationships between experiences, perceptions of support and how these influenced their career decision making.

We interviewed F2 doctors in two regions of Scotland and took care to recruit a diverse sample, representing doctors of both genders, graduate and school leaver (undergraduates) entrants to medical school and a mix of doctors from across the UK and Europe, which would be representative and consistent of junior doctors working in the NHS.¹⁹ However, their views may not be representative of all FP doctors across the UK. We are also aware that the training structure and environments differ across countries. However, the wider literature and anecdotal evidence suggests that the messages from this study are transferable and credible across healthcare contexts.^{14 30 31}

Our findings have implications for policy, practice and research. We have identified the critical importance of support and feeling valued in F2 doctor's career intentions. We can infer from the literature that positive social relationships with colleagues,^{79 80} intrinsic motivation,⁸¹ self-efficacy in one's skills and abilities^{79 82} and early exposure to training opportunities that were positively encouraged by senior medical staff⁵ are important components in terms of committing to further medical training (ie, applying for specialty training). This reinforces the importance of a supportive clinical learning and working environment, a factor that has been recently highlighted in the General Medical Council's most recent document on the state of medical education and training in the UK.⁸³ Yet, the data also suggests that there is an interaction between individual and the workplace environment. This duality merits further investigation.

We presented five unique stories out of a dataset of 21 stories shared by F2 doctors. Our study dealt with the influence of POS on career intentions. There was some suggestion in the data that POS may be viewed differently by female and male F2 doctors. Other research with this group has shown that female doctors place higher regard on a supportive working culture than their male counterparts.² Moreover, international research has shown that female doctors experience considerable challenges within the workplace, including lack of support.84-86 However, we do not know if there is a genuine difference between how male and F2 female doctors are supported in the UK workplace and, of course, our participants were self-selecting. Further research is required to explore this further. Second, within medicine, there are hierarchical structures and workplace cultures which influence the working and learning experiences of all types and levels of staff. Another potential area for future research would be to seek stories from senior and midgrade staff as well as more junior staff to explore POS more widely.

What our study has added is more insight into the important role played by senior staff and team members in terms of exemplifying the culture of the organisation and behavioural norms in terms of how people are treated by the organisation.³⁷ Colleagues can therefore help to improve junior doctors' perceptions of organisational support through prosocial behaviours like allowing trainee doctors more autonomy, participation in decision making, offering opportunities in professional development, offering rewards and praise for good work.^{1 10 33}

This may not always be easy where training competes with service in pressured environments where time and resources are limited.^{83 87–89} However, creating positive working environments does not need to be complicated: consultants and colleagues knowing the name of their trainee is a simple way to ensure workers feel valued.⁹⁰ The norm of reciprocity states that members who feel cared for and supported by the organisation will reciprocate these same patterns of behaviour in return to the organisation.²⁵ In other words, treat your juniors well and they will be happier and more committed to the NHS.^{34 37 41} This simple rule of behaviour may go some way to encouraging junior doctors to stay in the training pipeline.

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REFERENCES

- Degen C, Weigl M, Glaser J, et al. The impact of training and working conditions on junior doctors' intention to leave clinical practice. BMC Med Educ 2014;14:119.
- Scanlan GM, Cleland J, Johnston P, et al. What factors are critical to attracting NHS foundation doctors into specialty or core training? A discrete choice experiment. BMJ Open 2018;8:e019911.
- Cleland J, Johnston P, Watson V, et al. What do UK doctors in training value in a post? A discrete choice experiment. Med Educ 2016;50:189–202.
- Cleland JA, Johnston P, Watson V, et al. What do UK medical students value most in their careers? A discrete choice experiment. Med Educ 2017;51:839–51.
- Pianosi K, Bethune C, Hurley KF. Medical student career choice: a qualitative study of fourth-year medical students at Memorial University, Newfoundland. *CMAJ Open* 2016;4.

<u>6</u>

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- Maertz CP, Griffeth RW. Eight motivational forces and voluntary turnover: a theoretical synthesis with implications for research. *Journal of Management* 2004;30:667–83.
- Deutsch T, Hönigschmid P, Frese T, et al. Early community-based family practice elective positively influences medical students' career considerations--a pre-post-comparison. BMC Fam Pract 2013;14:24.
- 8. Akhund S, Shaikh ZA, Kolachi HB. Career related choices of medical students from an International Medical College of Karachi, Pakistan. *JLUMHS* 2012;11:3.
- Lachish S, Goldacre MJ, Lambert T. Associations between institutional support, job enjoyment, and attitudes to work in firstyear doctors in the UK: national questionnaire survey. *BMC Med Educ* 2016;16:151.
- Boerjan M, Bluyssen SJ, Bleichrodt RP, et al. Work-related health complaints in surgical residents and the influence of social support and job-related autonomy. *Med Educ* 2010;44:835–44.
- Ochsmann EB. Thinking about giving up clinical practice? A genderstratified approach to understanding junior doctors' choices. Acad Med 2012;87:91–7.
- Rich A, Viney R, Needleman S, et al. 'You can't be a person and a doctor': the work-life balance of doctors in training-a qualitative study. *BMJ Open* 2016;6:e013897.
- Spooner S, Gibson J, Rigby D, et al. Stick or twist? Career decisionmaking during contractual uncertainty for NHS junior doctors. BMJ Open 2017;7:e013756.
- Malik SZ, Kazmi SZ. The effect of perceived organizational support on doctors' organizational commitment in Pakistan. *The Lahore Journal of Business* 2016;4:73–92.
- Madden L, Mathia BD, Madden TM. In good company: the impact of perceived organizational support and positive relationships at work on turnover intentions. *Management Research Review* 2015;38.
- 16 Frechette D, Hollenberg D, Shrichand A, et al. What's really behind canada's unemployed specialists? Too many, too few doctors? Findings from the royal college's employment study. Ottawa, ON: Royal College of Physicians and Surgeons of Canada, 2013.
- Gorman DF, Brooks PM. On solutions to the shortage of doctors in Australia and New Zealand. *Med J Aust* 2009;190:152–6.
- Patty A. Forecast oversupply of doctors to hit this year amid calls to halt imports. Sydney Morning Herald. http://www.theage.com.au/ business/workplace-relations/forecast-oversupply-of-doctors-to-hitthis-year-amid-calls-to-halt-imports-20170103-gtle76 (accessed 11 Jun 2017).
- UKFPO career destination report 2016. www.foundationprogramme. nhs.uk/download.asp?file=Careers_destination_2016.pdf (accessed 8 Mar 2017).
- Gorman D. Developing health care workforces for uncertain futures. Acad Med 2015;90:400–3.
- Addicott R, Maguire D, Honeyman M, et al. Workforce planning in the NHS. The King's Fund. http://www.kingsfund.org.uk/sites/files/kf/ field/field_publication_file/Workforce-planning-NHS-Kings-Fund-Apr-15.pdf (accessed 1 Aug 2016).
- Layder D. New strategies in social research: an introduction and guide. London: Sage, 1998.
- Eisenberger R, Huntington R, Hutchison S, et al. Perceived organizational support. *Journal of Applied Psychology* 1986;71:500–7.
- Eisenberger R, Armeli S, Rexwinkel B, et al. Reciprocation of perceived organizational support. J Appl Psychol 2001;86:42–51.
- 25. Gouldner AW. The norm of reciprocity: a preliminary statement. *American Sociological Review* 1960;25:161–78.
- Rhoades L, Eisenberger R, Armeli S. Affective commitment to the organization: the contribution of perceived organizational support. J Appl Psychol 2001;86:825–36.
- 27. Rhoades L, Eisenberger R. Perceived organizational support: a review of the literature. *J Appl Psychol* 2002;87:698–714.
- Kurtessis JN, Eisenberger R, Ford MT, et al. Perceived organizational support: a meta-analytic evaluation of organizational support theory. *Journal of Management* 2015;43:1854–84.
- Newman A, Thanacoody R. The effects of perceived organizational support, perceived supervisor support and intra-organizational network resources on turnover intentions: a study of Chinese employees in multinational enterprises. *Personnel Review* 2012;41:56–72.
- Hao J, Wang J, Liu L, et al. Perceived organizational support impacts on the associations of work-family conflict or family-work conflict with depressive symptoms among Chinese doctors. Int J Environ Res Public Health 2016;13:326.
- Tekingündüz S, Top M, Tengilimoğlu D, et al. Effect of organisational trust, job satisfaction, individual variables on the organisational commitment in healthcare services. *Total Quality Management & Business Excellence* 2017;28:522–41.

- Maertz CP, Griffeth RW, Campbell NS, et al. The effects of perceived organizational support and perceived supervisor support on employee turnover. *Journal of Organizational Behavior* 2007;28:1059–75.
- Allen DG, Shore LM, Griffeth RW. The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of Management* 2003;29:99–118.
- Allen DG, Shanock LR. Perceived organizational support and embeddedness as key mechanisms connecting socialization tactics to commitment and turnover among new employees. *Journal of Organizational Behavior* 2013;34:350–69.
- Kaplan M, Ogut E, Kaplan A. Aksay K. The relationship between job satisfaction and organizational commitment: The case of hospital employees. World Journal of Management 2012;4:22–9.
- Arshadi N. The relationships of perceived organizational support (POS) with organizational commitment, in-role performance, and turnover intention: Mediating role of felt obligation. *Procedia Soc Behav Sci* 2011;30:1103–8.
- Otto K, Mamatoglu N. Why does interactional justice promote organizational loyalty, job performance, and prevent mental impairment? The role of social support and social stressors. J Psychol 2015;149:193–218.
- Allen NJ, Meyer JP. The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal* of Occupational Psychology 1990;63:1–18.
- Levinson H. Reciprocation: the relationship between man and organization. Administrative Science Quarterly 1965;9:370–90.
- Kalidass A, Bahron A. The Relationship between perceived supervisor support, perceived organizational support, organizational commitment and employee turnover intention. *International Journal* of Business Administration 2015;6.
- Eisenberger R, Stinglhamber F. Perceived organizational support: fostering enthusiastic and productive employees. Washington, DC: American Psychological Association, 2011.
- Buddeberg-Fischer B, Dietz C, Klaghofer R, et al. Swiss residents' arguments for and against a career in medicine. BMC Health Serv Res 2006;6:98.
- Dutton JE, Ragins BR, eds. Exploring positive relationships at work: building a theoretical and research foundation. Mahwah NJ: Lawrence Erlbaum Associates, 2007.
- Filipova AA. Relationships among ethical climates, perceived organizational support, and intent-to-leave for licensed nurses in skilled nursing facilities. *Journal of Applied Gerontology* 2011;30:44–66.
- 45. Crotty M. The foundations of social research. London: Sage, 2003.
- Kham TV. Overview of social constructionism and its potential applications for social work education and research in Vietnam. *Journal of Social Sciences and Humanities* 2013;29:30–7.
- Bamburg M. Stories: big or small: why do we care? Narrative Inquiry 2006;16:139–47.
- Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006;3:77–101.
- King N, Ch H. Interviews in qualitative research. London: Sage Publications, 2010.
- Lincoln YS, Guba EG. Naturalistic enquiry. Beverley Hills, CA: Sage, 1985.
- McMillan W. Theory in healthcare education research: the importance of worldview. In: Cleland JA, Durning SJ, eds. *Researching medical education*. Oxford: Wiley, 2015:15–23.
- Varpio L, Ajjawi R, Monrouxe LV, *et al*. Shedding the cobra effect: problematising thematic emergence, triangulation, saturation and member checking. *Med Educ* 2017;51:40–50.
- Monrouxe LV, Rees CE, Lewis NJ, et al. Medical educators' social acts of explaining passing underperformance in students: a qualitative study. Adv Health Sci Educ Theory Pract 2011;16:239–52.
- Dennis AA, Foy MJ, Monrouxe LV, et al. Exploring trainer and trainee emotional talk in narratives about workplace-based feedback processes. Adv Health Sci Educ Theory Pract 2018;23:75–93.
- 55. Kendall JE, Kendall KE. Storytelling as a qualitative method for is research: heralding the heroic and echoing the mythic. *Australasian Journal of Information Systems* 2012;17.
- 56. Bruner JS. Acts of meaning. Cambridge, MA: Harvard University Press, 1990.
- 57. Frohman D. Leadership under fire. *Harvard Business Review* 2006;84:124–31.
- 58. Flick U, Kardorff EV, Steinke I. A companion to qualitative research. London: Sage, 2004.
- Bamberg M, Demuth C. Narrative inquiry: an interview with michael bamberg. *Eur J Psychol* 2016;12:14–28.

- 60. Stinglhamber F, Vandenberghe C. Organizations and supervisors as sources of support and targets of commitment: a longitudinal study. *Journal of Organizational Behavior* 2003;24:251–70.
- Bailey PH, Tilley S. Storytelling and the interpretation of meaning in gualitative research. J Adv Nurs 2002;38:574–83.
- Sparr JL, Sonnentag S. Fairness perceptions of supervisor feedback, LMX, and employee well-being at work. *European Journal of Work* and Organizational Psychology 2008;17:198–225.
- Wang X, Liao J, Xia D, et al. The impact of organizational justice on work performance: Mediating effects of organizational commitment and leader-member exchange. *International Journal of Manpower* 2010;31:660–77.
- Spell CS, Arnold TJ. A multi-level analysis of organizational justice climate, structure, and employee mental health[†]. *Journal of Management* 2007;33:724–51.
- Eisenberger R, Stinglhamber F, Vandenberghe C, et al. Perceived supervisor support: contributions to perceived organizational support and employee retention. J Appl Psychol 2002;87:565–73.
- Billett S. Coparticipation at work: affordance and engagement. In: Fenwick T, ed. Sociocultural perspectives on learning through work. San Francisco: Jossey Bass/Wiley, 2001.
- 67. Eraut M. Informal learning in the workplace. *Studies in Continuing Education* 2004;26:247–73.
- Skipper M, Nøhr SB, Jacobsen TK, et al. "Organisation of workplace learning: a case study of paediatric residents' and consultants' beliefs and practices.". Adv Heal Sci Educ 2015;21:677–94.
- van de Wiel MW, Van den Bossche P, Janssen S, et al. Exploring deliberate practice in medicine: how do physicians learn in the workplace? Adv Health Sci Educ Theory Pract 2011;16:81–95.
- Sargeant J, Mann K, Sinclair D, et al. Learning in practice: experiences and perceptions of high-scoring physicians. Acad Med 2006;81:655–60.
- 71. Geertz C. The interpretation of cultures: selected essays. London: Fontana, 1993.
- Strauss A, Corbin J. Basics of qualitative research techniques and procedures for developing grounded theory. 2nd edition. London: Sage Publications, 1998.
- 73. Bordage G. Conceptual frameworks to illuminate and magnify. *Med Educ* 2009;43:312–9.
- 74. Reissman CK. Narrative analysis. *Narrative, memory & everyday life.* Huddersfield: University of Huddersfield, 2005.
- Labov W, Waletzky J. Narrative analysis. In: Helm J, ed. Essays on the verbal and visual arts. Seattle: University of Washington Press, 1967:12–44.

- Labov W. Some further steps in narrative analysis. Journal of Narrative and Life History 1997;7:395–415.
- Rooney T, Lawlor K, Rohan E. Telling Tales; Storytelling as a methodological approach in research. *The Electronic Journal of Business Research Methods* 2016;14:147–56.
- 78. Schiffrin D. Approaches to discourse. Blackwell: Oxford, 1994.
- 79. Bandura A. Cultivate self-efficacy for personal and organizational effectiveness. Blackwell: Oxford, 2000.
- Karademas EC. Self-efficacy, social support and well-being. The mediating role of optimism. *Personality and Individual Differences* 2006;40:1281–90.
- Eisenberger R, Rhoades L, Cameron J. Does pay for performance increase or decrease perceived self-determination and intrinsic motivation? *Journal of Personality and Social Psychology* 1999;77:1026–40.
- 82. Lunenburg FC. Self-efficacy in the workplace: implications for motivation and performance. *International Journal of Management, Business, and Administration* 2011:14,1.
- General Medical Council (GMC). The state of medical education and practice in the UK. 2011. http://www.gmc-uk.org/State_of_medicine_ Final_web.pdf_44213427.pdf (accessed 28 Aug 2016).
- Adesoye T, Mangurian C, Choo EK, et al. Perceived discrimination experienced by physician mothers and desired workplace changes: a cross-sectional survey. JAMA Intern Med 2017;177:1033–6.
- Bismark M, Morris J, Thomas L, *et al.* Reasons and remedies for under-representation of women in medical leadership roles: a qualitative study from Australia. *BMJ Open* 2015;5:e009384.
- Nomura K, Yamazaki Y, Gruppen LD, *et al*. The difficulty of professional continuation among female doctors in Japan: a qualitative study of alumnae of 13 medical schools in Japan. *BMJ Open* 2015;5:e005845.
- Busari JO, Koot BG. Quality of clinical supervision as perceived by attending doctors in university and district teaching hospitals. *Med Educ* 2007;41:957–64.
- Henning MA, Shulruf B, Hawken SJ, et al. Changing the learning environment: the medical student voice. *Clin Teach* 2011;8:83–7.
- Turner TL, Fielder E, Ward MA. Balancing service and education in residency training: a logical fallacy. *JAMA Pediatr* 2016;170:101–2.
- Cleland J, Roberts R, Kitto S, *et al*. Using paradox theory to understand responses to tensions between service and training in general surgery. *Med Educ* 2018;52.