

# Workplace support for newly qualified doctors and secondary school teachers: A comparative analysis

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## Abstract

Doctors and teachers in their first year of practice face steep learning curves and increased stress, which can induce poor mental health, burnout and attrition. Informal workplace support from colleagues can help smooth transitions and aid professional development. A three-phase comparative research design was used to explore who provides informal workplace support to early-career professionals, types of support and influencing factors. Phase 1 was a systematic secondary analysis of interviews and audio diaries from 52 UK doctors in their first year of foundation training (F1s). Phase 2 involved new narrative interviews with 11 newly qualified teachers (NQTs) from English secondary schools. Phase 3 was a comparative analysis to produce a model of workplace support. Given barriers to accessing senior doctors, F1 doctors drew upon nurses, pharmacists, microbiologists, peers/near-peers and allied healthcare professionals for support. NQTs gained support from allocated mentors and seniors within subject departments, as well as teaching assistants, allied support staff and wider professional networks. Support types for both professions included information and advice on practice, orientation to local settings, collaborative development activities, observation and feedback, and socioemotional support. Influencing factors included variable departmental cultures, limited opportunities for informal contact, sometimes negative inter-group perceptions and the agentic responses of novices.

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The resulting workplace model of support could underpin future research and evaluations of support in similar 'hot-action' environments. In medicine and teaching, greater utilisation of near-peers and allied staff, improved role understanding and communication, increased informal contact and sharing successful strategies across professions could enhance supportive relationships.

**KEYWORDS**

interprofessional support, informal workplace learning, workplace support, cross-professional comparisons

## Key insights

### What is the main issue that the paper addresses?

The main issue this paper addresses is enhancing support for newly qualified professionals during their first year of practice, with a focus on informal workplace support. A cross-professional comparison of doctors and teachers is used to draw out broader themes relating to workplace support within dynamic, high-stress environments.

### What are the main insights that the paper provides?

- The under-utilised role of allied staff and peers, in providing workplace support for newly qualified professionals.
- How supporting positive social connections can facilitate the development of professional networks inside and outside the workplace.
- A workplace model of support, for future research and evaluation of workplace environments.

## INTRODUCTION

Medicine and teaching both have high levels of staff attrition and poor mental health (House of Commons, 2018; Imo, 2017; Long & Danechi, 2021; Nuffield Trust, 2019). In England, the number of full-time teachers leaving each year now surpasses those being trained (Department of Health, 2018; National Statistics, 2017), and 44% of current teachers express intentions to leave within 5 years (National Education Union, 2022), with the risk of attrition being particularly high for early-career teachers (Doherty, 2020). Reasons cited include workload, heightened accountability, increasing paperwork, student behaviour, social isolation and unsupportive leadership (Department for Education, 2018; Ross & Hutchings, 2003; Schlichte et al., 2005; Smithers & Robinson, 2003). Recent surveys suggest

7–10% of teachers suffer from burnout or ongoing exhaustion (McInerney, 2018), with most unable to 'switch off' after work (Education Support, 2018). A third of teachers experienced mental health issues within the previous year (Education Support, 2020), and English secondary school teachers reported double the levels of moderate to severe depression expected at population level (Kidger et al., 2016). These wellbeing and retention issues lead to difficulties filling vacancies (National Audit Office, 2017) and secondary schools particularly face a 'substantial teacher supply challenge' (Foster, 2019; Worth & Van den Brande, 2019). Teacher shortages put further pressure on school systems, meaning higher workloads and stress for remaining teachers, squeezed budgets spent on agency staff, reduced teaching continuity and the loss of long-serving teachers, with possible impacts for student wellbeing and attainment (Behrstock-Sherratt, 2016; Every Child Matters, 2003; Ronfeldt et al., 2013). An additional issue is that of teachers who remain but become less effective and engaged through exhaustion and disillusionment (Day et al., 2011; McCallum & Price, 2010; Santoro, 2011).

In the United Kingdom, the National Health Service (NHS) faced a shortfall of 2550 newly qualified doctors in 2017 (Nuffield Trust, 2019). Fewer doctors who complete the first 2 years of postgraduate clinical training now move directly into specialist training, choosing to take non-training roles, overseas jobs or career breaks instead (Rimmer, 2019), leaving 1-in-10 specialist roles unfilled (Rolewicz & Palmer, 2019). Such decisions may reflect stress and burnout during the second year of clinical training (Rimmer, 2019) and feelings of being undervalued within systems that are 'under pressure' (Carrieri et al., 2018; Hollis et al., 2020; Lock & Carrieri, 2022)—understaffed, rising patient demand, inflexible working arrangements and stigma around mental health (Sykes et al., 2019). Resulting rota gaps compromise junior doctor wellbeing and training (Royal College of Physicians, 2019), and a fifth of UK doctors-in-training reported feeling burnt out 'to a high or very high degree' due to workload and unsupportive work environments (General Medical Council, 2019). Burnout, fatigue and poor mental health are all linked with higher risk of accidents and errors, putting patient care and safety at risk (Dewa et al., 2017; Tawfik et al., 2018; West & Coia, 2019). Furthermore, the recent pandemic is likely to have long-term impacts on wellbeing and professional development, for both medical and teacher trainees (Fullard, 2021; NHS Providers, 2021; Rushton et al., 2021).

Transitions into professional practice represent crucial periods for doctors and teachers (Education Support, 2018; Kilminster et al., 2011), who operate within dynamic, high-stress, 'hot-action' environments (Eraut, 2000). Professional transitions encompass not just physical movement between settings, but multiple changes in role, norms, practices and relationships (Ecclestone et al., 2009; Louis, 1980). They require translation of theoretical knowledge into practical action, with a move from the abstract and hypothetical to the messy, complex and concrete (Allen, 2009). Moreover, this professional decision-making is accompanied by heightened responsibility and stress (Glazzard & Coverdale, 2018; Prince et al., 2004). New professionals must navigate local geographies to establish 'who is who' within complex organisational hierarchies, and there is a shift in professional identities—hopefully accompanied by a sense of belonging to a community of practice (Cruess et al., 2018; Hodkinson & Hodkinson, 2003). Given these challenges, supporting transitions across the 'gap' between higher education and practice is key to ensuring individual wellbeing and professional performance (Brennan et al., 2010; Jen et al., 2009; Kyriacou & Kunc, 2007; Monrouxe et al., 2017; Totterdell et al., 2004). Furthermore, the loss of professionals from teaching and medicine is a societal loss in terms of time and monetary investment in training (National Audit Office, 2017; Walsh, 2015), further demonstrating the need for adequate support during these adaptive periods.

From the workplace learning literature, it is clear that informal support from others forms a significant part of learning how to be a new professional (Evans et al., 2007; Marsick &

Watkins, 2001; Moore & Klein, 2020). In medicine, research has examined the preparedness of medical trainees (Morrow et al., 2012), their transitions to practice (Monrouxe et al., 2015) and the effects of interprofessional education (IPE) and interprofessional learning (IPL) (Freeth et al., 2008; Reeves et al., 2002). However, little research has explored informal sources of workplace support for postgraduate medical trainees on clinical placements, or the extent of informal support provided by allied professionals and support staff. Similarly, research on workplace support for newly qualified teachers has mainly focused on school cultures and mentoring relationships (Hobson et al., 2009; Williams et al., 2001), but few studies have analysed the range of support from allied professionals and other staff. It is therefore beneficial to understand the workplace support provided to new doctors and teachers, the people who provide it and how supportive working relationships might be promoted. If effective, workplace support has the potential to aid transitions, facilitate professional development, promote good mental health and reduce decisions to leave.

Cross-professional comparisons are an under-used yet beneficial tool, which can aid identification of underlying features of workplace contexts and support theoretical model development (Booth, 1995). Past cross-professional analyses have examined: occupational stress levels, coping strategies and burnout in police, doctors, dentists and teachers (Gana & Boblique, 2000; Rutter et al., 2002; Sigler et al., 1991; Yang et al., 2004); professional socialisation of teachers and social workers (Bronstein & Abramson, 2003); feedback effectiveness in medicine, music and teacher training (Watling et al., 2013); theory–practice gaps in nursing, teaching and social work (Heggen, 2008); knowledge production by doctors and teachers (Hargreaves, 2000); professional development and training routes of teachers, doctors, nurses, firefighters, police, lawyers, accountants and architects (Booth, 1995; Burn & Mutton, 2015; Conroy et al., 2013; McLean Davies et al., 2015; Smith & Tillema, 2001); the workplace learning of newly qualified accountants, engineers, teachers, nurses and midwives (Eraut, 2007, 2008, 2009, 2011); and mentoring within medicine, business and education (Ehrich et al., 2004).

Despite obvious practical differences between the experiences of novice teachers and doctors, at a broader level there exist many commonalities between the professions, their working environments and transitions to independent practice (Foster-Collins, 2020). For instance, the ‘hot-action’ nature of these professional workplaces requires careful balancing of habitual responses (based on tacit expert knowledge) against the formation of novel problem-solving strategies (arising from conscious reflective thought), all under time pressure (Eraut, 2000). Medicine and teaching are both public service roles which require emotional labour to perform, including a professional demeanour under duress, entailing emotional management or suppression (Buckman et al., 2011; Day, 2004; Hargreaves, 1998; Monrouxe et al., 2015). Teachers and doctors tend to enter their professions with idealistic and altruistic motivations (Crossley & Mubarak, 2002; Heinz, 2015) and hold themselves to high standards, which can increase stress (Craiovan, 2014; Friedman, 2000). High workloads and busy working conditions impact personal lives (Brady & Wilson, 2021; Whallett & Coleman, 2016), with additional pressures created by changing government policies, cultures of measurement and perceptions of professional under-appreciation (Day, 2008; Hargreaves et al., 2009; Lipworth et al., 2013; Troman, 2000).

Parallels between training and development pathways in medicine and teaching have previously been noted (Booth, 1995; Conroy et al., 2013), but little research has explored these connections in relation to workplace support for novices. This novel comparison of different yet analogous contexts provided a unique opportunity to identify influential factors in the seeking, provision and acceptance of interprofessional support, both in these two specific professions and similar workplace environments. Understanding how new professionals navigate workplace environments to gain support from others may help inform educators and future novices as to how they can successfully traverse these transitions.

## METHODS

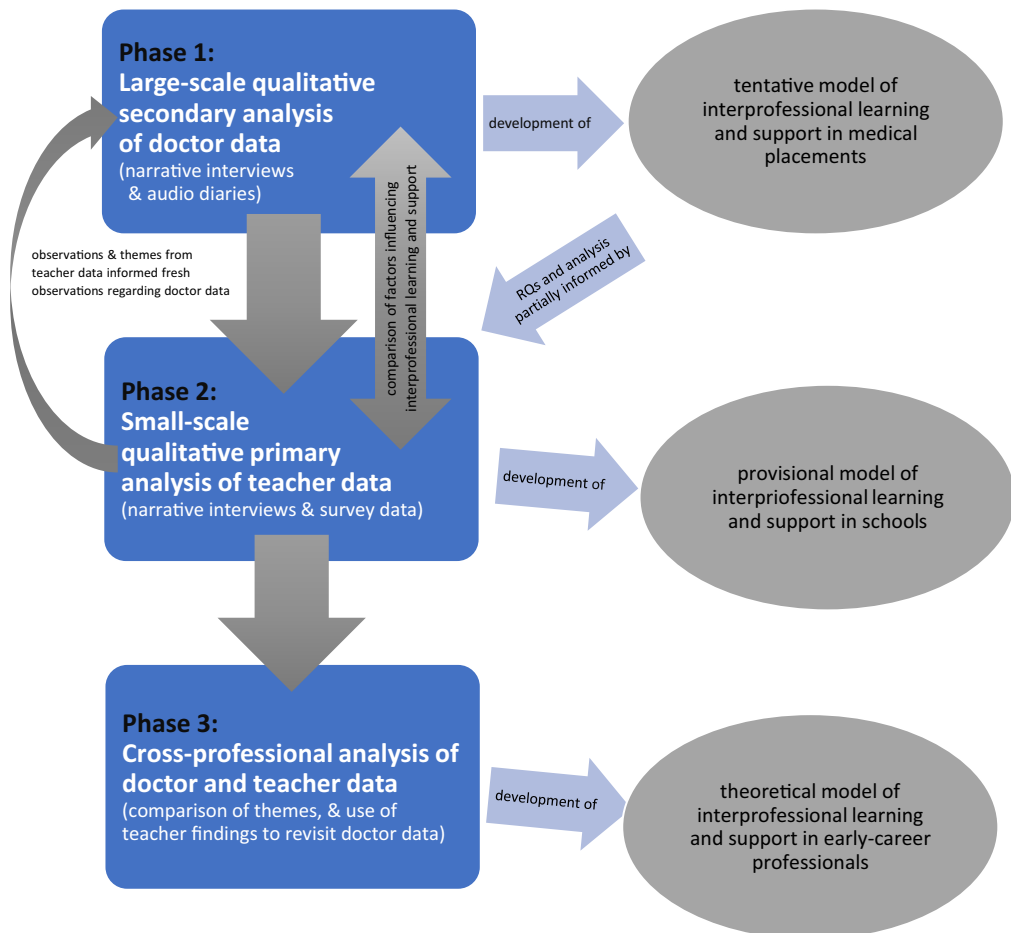
### Aims

The aim of this study was to identify specific issues which affect workplace support for newly qualified professionals in both teaching and medicine, including barriers, enablers and gaps, and how these professionals enact agency to obtain support, resulting in a model of workplace support.

### Study design

The research project was designed with three sequential phases, as shown in [Figure 1](#):

1. Secondary analysis of a large combined-narrative dataset, focusing on the experiences of postgraduate junior doctors (F1s) in their first year of practice in UK hospitals and other clinical placements.



**FIGURE 1** Phases of research.

2. Collection and analysis of a smaller primary narrative dataset, focusing on the experiences of newly qualified teachers (NQTs) in their first year of practice in English secondary schools.
3. Cross-professional comparison of the themes arising from this analysis of two datasets, with a revisiting of the doctor data using findings from the teacher data.

## Theoretical perspective

This research took a broadly sociocultural stance towards understanding the data, acknowledging how social understandings can be jointly constructed through dialogue, and the possibility of multiple interpretations of events. Sociocultural theories view workplace learning as an essentially social activity which goes beyond acquiring specific skills, competencies (Matthews, 1999) and information (Winch & Hadyn, 2002). Additionally, learners engage in group reflection and collaborative meaning-making whilst carrying out activities together, leading to shared understandings (Merriam, 2008; Svensson et al., 2004) and organisational 'stories' (Gabriel, 2000). Becoming an integral part of workplaces also involves 'socialisation' into collective organisational practices, values and norms (Ajjawi & Higgs, 2008; Kelchtermans & Ballet, 2002; Richardson, 1999) and professional communities of practice (Lave, 1991; Wenger, 1998)—themselves embedded in sociocultural, political and economic contexts (Manuti et al., 2015).

This perspective aligned closely with the social constructionist paradigms taken by the three original medical research projects which shared their data for secondary analysis. The analytical themes, conclusions and models produced during this new analysis were shared at intervals with members of the original research team, informing collaborative discussions on consistency of coding and possible interpretation. Findings and recommendations were shared with relevant stakeholders such as new teachers, doctors and their educators at relevant conferences, for sense-checking and feasibility.

A further theoretical influence upon data analysis was that of structure and agency (Archer, 1982; Biesta & Tedder, 2006), which aided description and understanding of the complex interplay between the material, organisational and sociocultural factors which inhibit or facilitate support, and responses of individuals to those—with potential for agents to change their environmental contexts and in turn be changed by them.

## Definitions

The specific literature-based definitions used in this study are provided in [Table 1](#).

## Narrative data collection methods

Narrative data has advantages for examining workplace support. By generating personal stories of experience, it is possible to capture the complex realities of who, what, when, where and why in the everyday practices of busy working environments. These rich accounts can also aid understanding of how participants actively make sense of experiences, including their social worlds and personal barriers. The 'ideal' narrative interview is modelled on a 'conversation' between two equal parties, albeit one guided by the researcher (Czarniawska, 2004). Narrative interviewers aim to elicit specific instances rather than generalised ones, using questions such as 'Can you recall a time that happened recently?' to ground data in place and time. Open-ended questions and prompts invite respondents to

TABLE 1 Definitions used in this research

Term	Definition
Professional	<ol style="list-style-type: none"> <li>1. Requires specialist skills and knowledge based upon a 'widely recognised body of learning' (Australian Council of Professions, 2003). These are obtained through a substantial period of academic study or training prior to professional qualification (Evetts, 2011), kept up to date via continuing professional development activities (Friedman &amp; Phillips, 2004) and developed over long experience, so requiring commitment (Freidson, 2001).</li> <li>2. Service-oriented (Downie, 1990), being exercised in the 'interest[s] of others' (Australian Council of Professions, 2003) and (ideally) based on a 'contract' between professions and the public (Sullivan, 2000). This calls for a degree of technical autonomy (Derber, 1983) and public trust (Pellegrino et al., 1991), given that professional judgements are not always easily communicable to laymen (Cruess et al., 2000).</li> <li>3. Have their own occupational communities (Collins, 1990; Wilensky, 1964). Codes and values are widely accepted and enforced by these communities (Australian Council of Professions, 2003) and are recognised by the public (Harvey et al., 1995).</li> <li>4. Belong to professional or regulatory bodies, with these organisations overseeing professional standards, codes of ethics, quality of training and accreditation (Downie, 1990; Harvey, 2004; Harvey et al., 1995; Hoogland &amp; Jochemsen, 2000; Science Council, 2019).</li> </ol>
Workplace support	Any assistance or help provided to a professional by other people (including other professionals, allied staff or outside agencies) such as information, advice and guidance, help with learning job-related skills and professional development, support with decision-making, feedback on immediate tasks and long-term progress, practical support and social and emotional support.
Secondary analysis	Any further analysis of an existing data set 'which presents interpretations, conclusions or knowledge additional to, or different from, those presented in the first report' (Hakim, 1982).

create storied accounts and deeply explore chosen topics (Chase, 2003). Similarly, solicited narrative diary methods can produce comprehensive accounts of events (Charon, 2008) and 'windows' into personal experience (Bolger et al., 2003). Although participants record data alone, audio diary data often appears 'conversational', with participants using virtual 'turn-taking', asking questions of the 'audience', using humour and expressing emotion (Jacelon & Imperio, 2005; Monrouxe, 2009).

## Datasets (Phase 1)

The Phase 1 datasets were previously generated to investigate transitions between medical school and practice, trainee doctor prescribing decisions and supervised learning events (Mattick et al., 2014; Monrouxe et al., 2014; Rees et al., 2014). They consisted of narrative interviews and narrative audio dairies from trainee doctor participants in four UK hospitals. Only data involving interviews and dairies with first-year postgraduate trainee doctors (F1s) was included in this secondary analysis, resulting in 61 interviews and 255 audio dairies from 52 participants. Much of this data consisted of personalised incident narratives (PINs): chronological stories, with a beginning, middle and end, recounting specific incidents of workplace experience and practice (Monrouxe et al., 2015). However, individual narration styles varied, and generalised incident narratives (GINs) were also produced: that is, generic versions of events occurring routinely in the workplace.

## Data collection (Phase 2)

Phase 2 participants were newly qualified secondary school teachers in their first or second year of practice (NQTs or NQT+1s) in England, of any age or gender. Eleven teachers were recruited via Twitter and Facebook, emails from university leads, or via educational professionals. We did not recruit directly via schools, to avoid any indirect pressure new teachers might feel to take or not take part. Participation was voluntary and no financial incentives were offered. Of the 11 teacher participants, nine were NQTs, one was an NQT+1 reflecting back on their NQT year, and one had not yet completed their NQT period. Face-to-face or telephone interviews were carried out between March 2018 and March 2019, during Spring and Summer academic terms (UK), to allow sufficient time for NQTs to settle into new roles and accrue workplace support experiences. Interview durations ranged between 40 and 75 min (mean = 56 min). Demographic information for participants is available in the online Supporting Information (Table 6).

Interview questions were informed by Phase 1 and sought to understand teachers' experiences of seeking and being offered workplace support. Formal and informal types of support were discussed to provide an overall picture of professional support in the workplace, and participants were encouraged to recall recent specific instances. The interview schedule (see online Supporting Information) was used in an open-ended, flexible manner to encourage naturalistic conversations, and questions were adapted to explore themes of interest as they arose. Later, during the interview, the four broad types of support identified in the medical data were used to elicit more stories of support in areas perhaps not previously mentioned. These areas were: information and advice; feedback (on immediate tasks or long-term progress); social and emotional support; and practical support. A list of staff hypothesised as possible sources of teacher support was shared as an additional prompt and added to during each interview. Lastly, teacher participants were asked how they might change or improve existing support processes.

## Data analysis

Although narrative data collection methods were used to guide participants towards recent experiential accounts of support, thematic analysis was considered a more appropriate analytical methodology for identifying themes across this broad combined dataset, rather than narrative analysis which tends to be more case-centred (Andrews et al., 2013; Riessman, 2008). This thematic analysis of secondary data (Phase 1) and primary data (Phase 2) was guided by the principles of framework analysis (Ritchie et al., 1994, 2013). Framework analysis is a systematic and transparent analytical process, consisting of five stages: Familiarisation; Index Creation; Indexing; Charting; Mapping and Interpretation. NVivo 11, a dedicated qualitative analysis software, was used to manage the data throughout.

- *Familiarisation.* 'Immersion' in the data was achieved by reading or listening to transcripts and audios repeatedly. For the doctor data, a substantial proportion was selected to represent the data as a whole during this stage, using interviews and audio diaries from all three studies and all four UK data collection sites. For the teacher data, given fewer transcripts, familiarisation was carried out with all the data. During familiarisation, notes were taken on possible overarching themes and links to the medical data, in preparation for the cross-professional comparison.



- *Index creation.* For the doctor data, a largely bottom-up, data-driven, inductive strategy was used to identify initial themes. This open type of coding allowed analytical flexibility, so that themes might better represent the data itself, within constraints of the broad research questions. However, at the point of index creation, some theory was drawn upon to help structure and make meaningful links between codes and themes. For example, the concepts of structure and agency (Archer, 1982) were employed after it was noted that doctor participants described differing responses to comparable factors in their environments. For the teacher data, this stage was informed by the previously created index, with overarching themes being influenced in part by findings from the medical data.
- *Indexing.* We systematically coded all doctor and teacher data, including all coherent stories where participants mentioned instances of seeking or receiving workplace support. Subsequently, codes were applied to these 'narratives of support' to determine which other professionals and staff provided support, what types of support they provided, factors described as facilitating or hindering workplace support, and participants' responses to these factors. Where possible, coding was done at the level of whole narratives, but where multiple support sources were mentioned in one story, analytical codes were applied to sections.
- *Charting.* For the doctor data, a spreadsheet was created to summarise themes and sub-themes, record the number of instances each theme was coded, and assemble quotes to illustrate each theme, ensuring these represented all research studies, locations and data types. For the teacher data, a chart was created illustrating main themes and their relevance for each participant (see online Supporting Information). For both datasets, a table was created which illustrated which staff provided support and the types of support they provided, in numerical form (see online Supporting Information). This was not intended to be a statistical analysis, but to provide a summary of general patterns within the data and provide evidence for themes (Monrouxe & Rees, 2019).
- *Mapping and interpretation.* This stage was integrated with the activity of writing up and formulating tentative models of workplace support. It was an iterative process, with the analysis of teacher data used to revisit and refine analysis of the doctor data.

## Cross-professional comparisons

The cross-professional analysis identified common factors which might facilitate or inhibit support in workplace settings, and professionals' responses to these factors. This cross-professional comparison began when the interview questions for teacher participants were composed, based on findings from the doctor data, and continued throughout all phases of the project (Foster-Collins, 2020).

This analysis was conducted in several steps. First, mapping the multiple social and organisational groupings of the workplaces described in medical and teacher narratives, to contextualise the comparative analyses. Second, comparing broad themes identified in the doctor and teacher data, to highlight points of similarity and divergence. Next, reflection on how the collection and analysis of teacher data acted as a lens through which to re-examine and identify new strands in the doctor data. Then, the strengths and limitations of different categories of people as sources of support for participants were considered. Finally, the findings were drawn together to inform development of an overarching model of workplace support for newly qualified professionals.

## Research ethics

Ethical clearance was granted by the Graduate School of Education, University of Exeter (Foster-Collins, 2020). For Phase 1, the original participant consent forms were revisited. The study proposal was shared with the original research team and one of the original Research Ethics Committees, who confirmed that the aims and research questions of this study were strongly aligned with the original research project. Teacher participants were provided with sufficient information regarding: the purpose, methods and intended uses of the research; what participation entailed and any risks or benefits; the voluntary nature of participation and right to withdraw; how data would be used, reported, accessed and stored, including depositing anonymised data with the UK Data Service for potential re-use.

## RESULTS

In Phase 1 (using 61 interviews and 255 audio diaries), 568 narratives were identified (258 GINs and 310 PINs), of which 439 talked about instances of support being provided by or sought from healthcare staff, and 129 mentioned general factors influencing support. In Phase 2 (using 11 interviews), 284 narratives were identified (181 GINs and 103 PINs), of which 264 talked about instances of support being provided or sought, as well as general factors influencing support.

### **RQ1: Who do F1s and NQTs describe as supporting them informally in the workplace?**

F1 doctors drew upon a wide variety of support sources. Registrars (mid-grade doctors) were mentioned most frequently, followed by nurses and consultants (senior doctors), then other medical staff and allied healthcare professionals (HCPs), including pharmacists, microbiologists, general practitioners (GPs), social workers, physiotherapists, occupational therapists, dieticians or nutritionists, healthcare assistants (HCAs), midwives, ward assistants and hospital porters.

In contrast, NQTs mentioned mentors and other teachers within their main subject departments most frequently, followed by senior leadership teams, middle leaders and teachers in other departments, and teams of support staff specialising in behaviour support, special educational needs (SEN) and student wellbeing. External sources were mentioned by some; for example, unions or staff from initial teacher training bodies, direct support from visiting professionals including a speech and language therapist, educational psychologists and a mindfulness coach. Wider professional networks of NQTs or experienced teachers were accessed through activities like conferences, training or social media. Finally, some novice teachers received support from family and friends.

### **RQ2: What types of support do F1s and NQTs describe as being provided?**

The types of support received by new doctors and teachers were similar, including collaborative development activities, checking decisions and identifying errors, observations and feedback, information and advice, and socioemotional support. [Table 2](#) shows illustrative quotes for each support type.

**TABLE 2** Types of support narrated as being provided to F1s and NQTs, with illustrative quotes

<p>1.1 Collaborative development activities</p> <p><b>These encompassed socially interactive activities with others in the workplace which supported their professional learning.</b></p>	
<p>F1 participants</p> <p>Q1: In one audio diary, a trainee described learning about how to care for patients with nasogastric tubes (NGs) from a nutritionist. <i>'Mainly my medical role in nutrition which is looking after patients with NGs, looking out for re-feeding syndrome um making sure the NGs are in place but I didn't really know anything about that... the nutritionist on my ward she gave me some really useful teaching but she was surprised that we didn't really know anything about it um so I kind of encourage her to do some teaching on it um which... was really useful.'</i></p> <p><b>FT_A_P1_Nutritionist</b></p>	<p>NQT participants</p> <p>Q2: <i>'In English in particular... she would show me examples of... the students' work, and the different stages... and what's expected [and] there's just so much marking. But, I was marking for everything, and then she actually would come up say look... focus on this and this... [and] afterwards you think... yeah of course, I'm spending such a long time on this one piece of work.'</i> <b>NQT1_O_Subject mentor (also SLT)</b></p>
<p>1.2 Checking decisions and identifying errors</p> <p>These were instances where trainee doctors sought confirmation and reassurance from other professionals regarding clinical decisions, or other staff identified errors they had made.</p>	
<p>Q3: <i>'I think there was once when I recalculated and the dose that was prescribed was slightly higher than it was supposed to be so then I asked the pharmacist and they said yeah, that's right you should you know prescribe it at that dose.'</i></p> <p><b>FT_G_P3_Pharmacist</b></p> <p>Q4: <i>'One of the great things about microbiology here is that they often come round and spot things that people haven't noticed.'</i></p> <p><b>MT_G_P4_Microbiologist</b></p>	
<p>1.3 Observations and feedback</p> <p>This encompassed all feedback given on specific activities and tasks, or general progress and competence, including praise, criticism, reflective discussion and advice on improving practice.</p>	
<p>Q5: <i>'It's just my consultant is so busy the only feedback I've had is him saying oh there's no burning issues, I'll meet you in a couple of weeks... Just some sort of indication of how I'm doing... if you don't get any feedback you're only 5 months in and... if there's things you're doing wrong you want to start changing them and you can't, because it's too late.'</i> <b>T_G_P5_Consultant</b></p> <p>Q6: <i>'I said to the registrar... do you mind talking through that if I were to do that again... is there anything that I could have done differently to handle it better and she was really nice about it and she just said you know this was good this was good but another time maybe you could do this and this and you know because then you know because you want to better for the patients, for next time.'</i> <b>MT_I_P6_Registrar</b></p>	<p>Q7: <i>'If we're having a cup of tea at break, or we'll sit and chat about a lesson that's just happened and I say, it hasn't gone very well I don't really know how I could have improved it... we do have the designated time but equally it's... more free-flowing than that.'</i> <b>NQT6_F_Subject mentor</b></p> <p>Q8: <i>'I also had the other NQT come and observe me... so we've supported each other in that way and then she gave me feedback and kind of how she would have done it differently and we've kind of discussed that, in kind of our fresh out of training... linking it to everything.'</i></p> <p><b>NQT10_I_Other NQTs</b></p> <p>Q9: <i>'Just having someone to kind of let you know y'know oh this is going really well or they didn't really respond to that, they were really good with this. That is invaluable having that kind of constant feedback was really good.'</i> <b>NQT4_I_Teaching assistant</b></p>

(Continues)

TABLE 2 (Continued)

1.1 Collaborative development activities <b>These encompassed socially interactive activities with others in the workplace which supported their professional learning.</b>	
F1 participants	NQT participants
<b>1.4 Information and advice</b>	
This encompassed information and advice provided on the medical/teaching roles themselves, information relating to local workplace contexts and on practical matters.	
<b>1.4.1 Information and advice on professional roles</b>	
Q10: <i>'I was actually going to ring the SHO cause I wasn't sure and then another more experienced nurse came and she... said y'know if an NG tube comes out in the middle of the night... you're not going to get it X-rayed what happens is... we give the person some fluids to keep them going until the next morning.'</i> <b>MT_A_P7_Nurse</b>	Q12: <i>'It's all well and good being able to deliver a lesson but, for me as a teacher I think you've got to have the ability to really extend pupils, and I just felt like... I couldn't necessarily extend them cos I've not got that subject knowledge to extend the higher ability... so for me as a teacher to try and get them better... getting teaching points... has definitely helped.'</i> <b>NQT2_C_Subject mentor</b>
Q11: <i>'I got a phone call from [a nurse] saying that she didn't like the look of another one of the patients and I was like ok so I went up and I had a look and to be honest this patient hadn't really changed that much in the notes it was the whole increasing drowsiness thing... and the nurses didn't know if it was increased she just didn't like the look of her I think largely meaning the colour... and I don't think I fully grasped it until she said I think we need to call the husband at which point I was like ok... I'd called the SHO cause I realised by this point... that this was serious.'</i> <b>FT_A_P20_Nurse</b>	Q13: <i>'We've... got someone that used to be a primary school teacher... I find it most difficult to teach the really low level, like if I've broken something down into such small bits... and you're still not understanding, where do I go from here and... having him in the department's a real help in that sense, cos he can just inspire you with different methods and more visual things and manipulatives... which to be honest as a secondary school teacher you'd never think of.'</i> <b>NQT11_I_Other teacher(same department)</b>
	Q14: <i>'The tutor group I have there is a high number of... children with significant needs, so I'm always talking to the support staff and they're always in touch, which is really good because then we end up sharing information about, other children that I teach which is really useful to know, and... they are really supportive.'</i> <b>NQT6_O_Support staff(unspecified)</b>
<b>1.4.2 Information and advice on local workplace contexts</b>	
Q15: <i>'I knew the surgical wards in [hospital] were different from the medical ones in the way jobs were communicated to F1 doctors, but I did not really have any appreciation of what kinds of jobs I would be called upon to perform or what the workload would be like... It was only later in the evening that a member of staff on another surgical ward happened to mention that all non-elective admissions should receive a referral to senior surgical staff once they had been clerked in... I was grateful for [this] help and support but... I went away from the experience feeling this patient could so easily have been overlooked by senior staff until the following morning simply because I was unfamiliar with procedures on an unfamiliar ward.'</i> <b>FT_A_P20_Unknown</b>	Q17: <i>'It could be more whole school sort of values or procedures, cos one thing I've found this year... it's not just how you teach it's the school policies as well which you've sort of got to get your head around, so... for example, if I've sanctioned a child it's how you follow it up, whether you have to make a phone call home and how you log it on the system, so I find that really useful... with my NQT mentor, just cos he can talk you through the process and make sure you're doing it by the book.'</i> <b>NQT2_F_Subject mentor</b>

TABLE 2 (Continued)

1.1 Collaborative development activities These encompassed socially interactive activities with others in the workplace which supported their professional learning.	
F1 participants	NQT participants
Q16: <i>'I think the nurses are really important at the start because they're always having to show you where to find things or this is how you do it you know this is how it works on this ward... who to phone to get this done, even what time the consultants come around at – you know they know all them things cos they've been working there for years and they know what it's like when we start.'</i> MT_G_P8_Nurse	Q18: <i>'All the other stuff that y'know you don't really get to, you only kinda learn as you're going through the job and... stuff like inputting data and school systems and... all that kind of stuff is kind of where we rely on the more experienced members of our department really.'</i> NQT7_U_Other teacher(same department)
1.5 Socioemotional support	
Q19: <i>'I'm quite lucky because I live with other F1s and we spend a lot of our time talking about things that happen at work and I think that's really important but most people probably don't have that support and that's a great release for me to know I'm not alone.'</i> FT_A_P1_Other F1s	Q20: <i>'Three of us are NQTs, and we trained here together last year... cos we're quite a big department as well so if I'm having a bad day, I'll walk into someone else's classroom, and there's normally, some chocolate in someone's drawer, so we'll be like a sit down and moan.'</i> NQT3_N_Other NQTs
1.6 Practical support	
Q21: <i>'My old reg on the last job in surgery I found him really nice because he'd always – he'd realise how stressed or how much you had on and he would take jobs off of your shoulders to do himself even though they're technically not really reg jobs like chasing bloods he'd do those things to help you out because he could see you were busy.'</i> FT_G_P9_Registrar	Q22: <i>'There was an idea that I saw recently on Twitter which was from a geography teacher erm about top trumps you know the card game, so... implementing that and changing that so it's a key resource and you're talking about different athletes and the attributes they have y'know how fast they can run or how high they can jump and stuff like that... I got her to send me hers and changed the words.'</i> NQT7_N_Wider teaching networks
1.7 Student support	
	Q23: <i>'Any issues like friendship and stuff will go through to our head of house, because she's not a teacher she's just there to support the children... so, rather than me then having to take my breaks looking after my form, I'm able to send them to her and then do some follow-up afterwards once things are more sorted out or there's a clearer situation... that's her job, she does it and then she reports the findings back to form tutors, so it's really helpful in terms of not having to do quite so much.'</i> NQT3_F_Head of house

*F1 participants.* The code after each quote (e.g., FT\_A\_P1\_Nutritionist) refers to the gender of the participant—female trainee (FT), male trainee (MT), gender not known (T)—followed by the data source type—single participant interview (I), group interview (G), audio diary (A)—a unique reference number to identify each participant quoted (P1, P2, etc.) and the type of staff providing support, if relevant (e.g., Nutritionist).

*NQT participants.* The code after each quote (e.g., NQT1\_O\_Subject mentor) refers to a unique reference number to identify each participant quoted (NQT1, NQT2, etc.), where relevant how support was offered to or sought by NQTs—formal (F), initiated by the other member of staff (O), 'checking in' (C), informal (I), initiated by the NQT (N), unknown (U)—and the type of staff providing support (e.g., Subject mentor).

## Collaborative development activities

Participants engaged in socially interactive learning activities with others. For new doctors, this might consist of guidance through medical procedures with continuous feedback, bedside teaching, 'quizzing' or case discussion. This was the support type mentioned most often in F1 narratives and was usually described as occurring spontaneously 'on-the-spot' in response to particular clinical problems or learning opportunities. These stories most frequently involved doctors who were immediate seniors, followed by microbiologists, pharmacists, nurses and other HCPs such as midwives, social workers or nutritionists<sup>Q1</sup>.

Collaborative learning activities for teachers tended to be less immediate, occurring during breaks, planning, preparation and assessment time or after school. They included joint planning of lessons and schemes of work, sharing examples of marking, reflective discussions of problems and demonstrations of classroom management. This support type was mainly provided by other teaching staff such as NQT subject mentors<sup>Q2</sup>, department heads and other teachers within their department.

## Checking decisions and identifying errors

A frequent theme, found only in the medical data, was seeking confirmation about clinical decisions or having errors detected by other staff. In addition to registrars and other immediate seniors, pharmacists<sup>Q3</sup> and microbiologists<sup>Q4</sup> were described as proactive in identifying errors and checking decisions. Such support was felt to reduce error, increase patient safety and support clinical learning.

## Observations and feedback

Both professions mentioned receiving insufficient praise and general feedback on professional progress. Doctors tended to receive informal feedback rather than formal assessments, given difficulties arranging meetings with supervisors because of workload, inaccessibility or variable attitudes towards novice doctor learning<sup>Q5</sup>. Therefore, constructive informal feedback from middle-grade doctors was greatly appreciated<sup>Q6</sup>. By contrast, most teacher participants described receiving regular classroom observations/assessments by senior leaders, department heads, subject mentors and NQT coordinators. Other instances of feedback were more informal or spontaneous<sup>Q7</sup>, for instance, teachers in one department observed and commented on each other's lessons<sup>Q8</sup>; and another NQT received feedback from a teaching assistant (TA)<sup>Q9</sup>.

## Information and advice

Information and advice, including that related to professional roles and local workplace contexts, was a key theme for both professions, and the support type most frequently mentioned by NQTs.

### *Information and advice on professional roles*

Many F1 narratives referred to clinical information and advice on 'what to do' in particular medical situations<sup>Q10</sup>. Such support was sometimes given directly; for example, telling trainees which antibiotics to prescribe and sometimes indirectly; for instance, nurses drawing attention to clinically relevant symptoms<sup>Q11</sup>. NQTs described receiving advice on general

teaching methods, subject or course-specific knowledge such as how to teach particular topics, inspiration for lessons and how to differentiate lessons by ability<sup>Q12, Q13</sup>. Some staff, primarily those from behaviour, SEN and pastoral teams, shared information and advice about specific students, or provided general advice on behaviour management and SEN topics such as autism<sup>Q14</sup>. Further guidance related to marking, planning, curriculum changes, teaching resources, NQT paperwork, safeguarding, communication skills (e.g., talking to parents) and training or professional development opportunities.

### *Information and advice on local workplace contexts*

Both groups described seeking or receiving information and advice on the 'local cultures' of their specific workplace contexts. For F1s, this was ongoing as they adjusted to new placements every 4 months and to new wards when 'on-call'. F1s described the need to gain understanding of ward or department-specific procedures, protocols or implicit 'rules' which might differ from previous ones<sup>Q15</sup>. They also needed practical advice on topics such as equipment location, computer passwords, etc. Nurses were mentioned as useful sources of these types of support<sup>Q16</sup>.

Teachers were able to accumulate this knowledge over their first year and some participants were familiar with schools before starting NQT, due to placements or school-based initial teacher training (ITT) programmes. This information included school-wide policies and behaviour systems<sup>Q17</sup>, role expectations, administration tasks, data collection or entry<sup>Q18</sup>. This support was largely provided through formal systems such as initial school inductions and regular NQT meetings, supplemented by NQTs' additional questions. Both professions described wide variations between induction procedures in different wards, clinical placements or schools (see RQ3).

## Socioemotional support

This was defined as support which 'promotes the wellbeing or coping abilities of the recipient' (AbuAlRub, 2004, p. 75). For doctors, this included providing reassurance, 'talking things through', making F1s feel part of the team, as well as liaising with patients, families or staff on their behalf (brokering). Socioemotional support was most frequently provided by peers<sup>Q19</sup>, as well as nurses and doctors of higher grades.

For teachers, socioemotional support included sharing feelings and experiences, gaining reassurance, reframing unrealistic expectations and the modelling of vulnerability. Socioemotional support was mostly provided by other teachers within their departments, including subject mentors and department heads, peers and near-peers<sup>Q20</sup>. Other sources included people outside school such as family and friends (including teachers) and union support services.

## Practical support

Practical support for new doctors included helping with or 'taking over' tasks, such as setting up equipment, taking blood or performing cannulation. This was sometimes offered spontaneously, thus reducing immediate workloads and freeing trainees for other tasks. It was most frequently provided by nurses, registrars<sup>Q21</sup> and peers, with some trainees relating how reciprocity was commonplace. Most practical support for teachers took the form of resource-sharing, but also included an offer to teach their class, transport to school, admin tasks such as photocopying, acting as an advocate for employment issues, and time and lesson cover for continuing professional development (CPD). It was mainly accessed from more experienced teachers within departments or wider professional networks<sup>Q22</sup>.

## Student support

Interestingly, teacher participants characterised support for students, within or outside the classroom, as support for themselves as teachers. This could include supporting students with behaviour management and restorative conversations, specific learning needs or social and emotional issues (such as friendship conflict, anxiety, trauma or social skills). Student support was most frequently provided by specialist SEN, behaviour and isolation teams, pastoral support staff<sup>Q23</sup> and in-class TAs, as well as 'dinner ladies' and attendance officers.

To give a sense of 'who provided what' in the data, Tables 7 and 8 (in the online Supporting Information) give a numerical overview of how often different types of support were provided by different groups, for doctor and teacher participants.

## RQ3: Which factors do F1s and NQTs describe as influencing their workplace support?

These were categorised under sociocultural, organisational and material factors (see illustrative quotes, [Table 3](#)).

### Sociocultural factors

This theme examined social and cultural influences on support. For both groups, local department or team 'cultures' were identified as important. F1s narrated differences between placements in different wards and clinical specialities, and NQTs conveyed variations between schools and departments within schools<sup>Q27</sup>. These differences included senior staff's enthusiasm to support and teach novices<sup>Q24, Q25</sup>, approachability of staff and feelings of being valued by teams<sup>Q26</sup>. Teachers described how supportive relationships with their departments and teams could be facilitated by taking breaks or socialising together<sup>Q28</sup>, whereas F1 participants tended to describe building friendships through collaborative working. Sharing resources<sup>Q29</sup> rather than competing for them<sup>Q30</sup> contributed to supportive departmental cultures within schools.

For both professions, the importance of interpersonal and interprofessional relationships was highlighted, including perceptions of other staff and their roles. An interesting parallel was noted between perceptions of nurses in medical settings and perceptions of TAs in schools, with support from nurses and TAs being viewed positively or negatively. For instance, TAs might be respected as holding valuable knowledge of working with children with additional needs due to long experience<sup>Q39</sup>, or viewed more as an 'extra pair of hands'<sup>Q40</sup>. Nurses could also be portrayed as knowledgeable experts<sup>Q31</sup>, but at other times were characterised as pushy<sup>Q32</sup>. TAs and nurses were both sometimes described as undermining the authority of these new professionals<sup>Q33, Q41</sup>.

Doctor participants were more likely than teachers to describe senior staff as difficult to approach, dictatorial, critical or bullying<sup>Q34</sup>. Some F1 participants described how improving their own interprofessional communication skills over time (such as preparing information and questions in advance) helped overcome their fears of approaching 'intimidating' staff, thus facilitating future support<sup>Q35</sup>. Certain seniors were identified by doctors and teachers as particularly good mentors<sup>Q42</sup>. Peers and near-peers were described by both teachers and doctors as more approachable than senior staff, given differences in authority and assessment role, and having a better appreciation of issues for trainees<sup>Q36, Q37, Q43, Q44</sup>.

Getting to know other staff and developing rapport was described by both groups as promoting future support-seeking and provision. 'Knowing which staff to approach and when' was a separate sub-theme for F1s<sup>Q45</sup>, as improved awareness of the exact roles of different



**TABLE 3** Organisational and sociocultural factors narrated as influencing support for F1s and NQTs

2.1 Sociocultural factors	
<b>2.1.1 Sociocultural factors: Department or team cultures</b>	
Q24: 'I'm on accident and emergency at the moment, and some of the registrars there are really enthusiastic teachers, and are saying [name of F1] come, come and examine this interesting person.' <b>MT_G_P24</b>	Q27: 'I think it's all fine just as long as, there are people there that are willing to talk to you and help you... whether it is formal or informal, you need to feel like you can say... I need help and someone's gonna help you... and I know some people don't have that and that's awful.' <b>NQT5</b>
Q25: 'My consultant [ ] he was really really good and really keen on teaching, and practically everyday with we'd spend an hour or two just discussing cases, which I found incredibly interesting and I loved it.' <b>T_G_P25_Constant</b>	Q28: '[In our department] we have a faculty area and we all have lunch there and we all have break times there and there's a lot of like laughing and joking... I feel like I'm working with friends, and that makes everything a lot easier... everyone in that department has been very supportive of me through the NQT.' <b>NQT5</b>
Q26: 'They were just a lot more understanding which I think creates a better team dynamic and probably also better patient care because you're more willing to ask questions and... approach your seniors for advice.' <b>MT_A_P14</b>	Q29: 'I find you quite often if I send an email out and say I don't know what I'm gonna teach for this part... have you got any resources, you get like ten emails back from people saying yep use this or you can do this and da dah!' <b>NQT6</b>
	Q30: 'I've never taught [subject] in my life before let alone study it or anything... that first term I just was so stressed... [One] of the other teachers that I was sharing with... she wasn't very supportive... she wanted to work by herself so that when her grades came out she had full ownership over them, so she didn't want to share anything.' <b>NQT8</b>

(Continues)

TABLE 3 (Continued)

## 2.1 Sociocultural factors

2.1.2 Sociocultural factors: *interprofessional and interpersonal relationships*

## 2.1.2.1 Perceptions of other staff

- Q31: 'So it was like my first time in two years and I'm like oh, no (laughter)... but she was very encouraging. She guided me step-by-step before we went to the patient. So when we were at the preparation she was like, "Okay, take this, take that" and she went through the steps so just to build up my confidence... it gave me confidence from the professional, she's done like loads of tubes.'
- T\_G\_P33\_Nurse**
- Q32: Some references were made to nurses as 'pushy', both literally and metaphorically, with instances of them being described as 'shoving' charts in Ft's faces **P21 & P8**, 'pestering' them to do tasks **P26** or 'tugging at your shirt' **P25**.
- Q33: 'I had [a] locum nurse who was not following any of the instructions I was giving her, I asked her to put a bag of fluids up and she thought it was more important to clean the room for the family to come in and she was deliberately doing other things while I had to manage this unwell patient... I didn't want to tell the nurse anything because you tend to get into trouble if you tell off nurses so I... got one of our usual nurses who was very good at following instructions and helping me out with this patient.' **MT\_A\_P17**
- Q34: 'A lot of people find radiologists are quite tough to talk to... to be fair I always think they do get quite a lot of stick? And some of them can be really quite mean. But then, they must get flooded with hundreds of requests every day... being able to sort of persuade the radiologist why it needs to be done and they probably see already why it needs to be done... it's a strange dynamic... uhm so that's quite intimidating at the start.' **MT\_I\_P17\_Radiologist**
- Q35: 'I had to discuss a patient with microbiology and... I used to be terrified of doing that but now it was ok... they ask an awful lot of questions but they're nice... they don't mind if you take your time to answer them and that took kind of a lot of the nerves out of it.' **FT\_A\_P20\_Microbiologist**
- Q36: 'I think luckily you know the most important people in this are your peers... so you know first of all you say ooh how do I do this and then your F2 might turn and say right you fill out a yellow card put this sort of information on it take it round to you know this department hand it over at the desk and tell them it's urgent.' **FT\_A\_P12**
- Q37: 'When we start we get given an educational supervisor the difference between him and us is huge they are a consultant and we are an F1 so they have been a ward doctor for God knows how many years so asking them questions that are relevant to me can't be answered by them. So to me it seems that if I am to get supervision the best person to, for day to day things, will be someone immediately superior to me like an F2.' **MT\_G\_P19\_Supervisor**
- Q39: 'They're all full of y'know great advice they work with those kids day in day out so they're always the best people to kind of go to for that kind of advice.' **NQT1**
- Q40: 'We have a man that sort of comes in within the PE lesson and just... makes sure they're on task and they're aware of what they need to do... I sort of tell him what to do but I say to him like if you feel you need to change it like I'm happy for you to do... I trust him definitely and he's been yeah he's useful, I wouldn't say he helps me with my actual teaching with the others but it's just good to have that extra pair of hands for the challenging students.' **NQT2**
- Q41: 'I have a [child] in my year seven class who isn't the reason the TA's in the class... but [they're] a bit of a sulker and if [they] get in a mood [they] just won't do any work and so the TA erm will try and deal with that sometimes and sometimes in a way that I would not deal with it at all.' **NQT5**
- Q42: 'Just really lovely and I'd see her all the time and when I see her she always gives me a big hug and kind of asks how I'm doing and, which is, like a kind of mum thing I go like Oh, and so that's quite nice.' **NQT2**
- Q43: 'She's two years ahead of me, so she kind of understands what it's like and what's happening and has lots of resources that she can help give... so I think that's very helpful as opposed to having someone who's been teaching for seventy-million years, like she actually gets it, when I sit there and go - I have over a hundred mock papers to mark, how do I do this? She knows what, how to help.' **NQT3**
- Q44: 'I think a lot of teachers can forget what it's like when it's all still new, especially here, a lot of the teachers have been teaching for a long time and generally only here.' **NQT9**

TABLE 3 (Continued)

<p>2.1 Sociocultural factors 2.1.2 Other interpersonal factors</p>	<p>Q45: 'If that was my first day as an F1 I wouldn't know that you could call a pharmacist and they would do that for you but I did it and it saved me a lot of hassle.' <b>FT_G_P15</b></p> <p>Q46: 'When I started I needed someone that I know I can ask questions to without fear of you know ridicule or repercussions and the best person would be an F1 or F2 or just someone, someone with just a few notches above... and they can just give... you know you're not going to, you are going to get an answer that's going to be relevant and you are not too worried about feeling stupid.' <b>MT_G_P19</b></p>	<p>Q47: 'So that just really like cemented, confirmed my suspicion that she just took a dislike to me... and she [wrote] well needless to say I will not do that for her.' <b>NQT1_Head of department</b></p>
<p>2.2 Organisational factors 2.2.1 Organisational factors: Availability of staff</p>	<p><b>F1 participants</b></p> <p>Q48: 'You're forced to work very independently at night, whereas in the day as a junior doctor or as a medical student there's a there's quite a large support team around you.' <b>FT_A_P1</b></p> <p>Q49: 'There was a very fast ward round in which all 25 patients were seen within 10 to 15 minutes and quick plans made on them all and after that the registrars left the ward and the F1s were left to do all the jobs on the ward and keep the ward going until the afternoon ward round as there was no other seniors there throughout the day.' <b>FT_A_P11</b></p> <p>Q50: 'It's different on different wards, on the orthopaedic wards when you're assessing patients the uh nurses are there with you instead of doing something else.' <b>FT_I_P10</b></p> <p>Q51: 'I'm really happy to ask questions and have discussions with seniors, but if they're busy, or if they're not engaging in the discussion, then I'm not happy to pester them anymore.' <b>FT_I_P30</b></p>	<p><b>NQT participants</b></p> <p>Q52: 'I'm quite lucky I talk to her quite a lot outside our mentor meetings, we'll often plan lessons together or we'll send lesson plans across... there is quite a good dialogue I go and talk to her most evenings... and it also means it feels less pressured... [they] are more a chance to record, what we've done and discuss anything I've not managed to talk through about... she is the first person I would go to if I'm having something going wrong...' <b>NQT3_Subject mentor</b></p> <p>Q53: 'I know that I'm supposed to have [regular] meetings, and talk about your targets and what you need to work on and what's going really well... I don't, really do that, because for the PGCE, my head of department gets a free period to do that, but we don't have a free period that we're given to do that so... rather than us setting a time every fortnight... and I save up all my problems until then, we just talk regularly... I tend to come in fairly early and he does too sometimes so he can sometimes talk in the mornings.' <b>NQT5_Subject mentor</b></p> <p>Q54: I: 'And your mentor, were they in [your] department?' P: 'She yeah, but she was also part of SLT, so our meetings would be disrupted sometimes when we meet, once a week.' <b>NQT1_Subject mentor</b></p>
<p>2.2.1 Organisational factors: Other</p>	<p>Q55: 'There's a lot of jobs to do there's a lot of patients a lot was expected of us... I think we're put into positions where we had to make decisions on our own [speciality] on calls... the on calls you're already making decisions and you know... sometimes they're not decisions you're qualified to make really but in the absence of a better person to make then you just kind of have to do your best... and you just had to you know be very alert and aware of what was going on which is tricky if you're running around trying to organise CT scans and doing tasks like that.' <b>MT_I_P6</b></p>	<p>Q56: 'We do have NQT training sessions, with all the NQTs in our school and then with NQTs from other schools around the area, it's really interesting to see what people who teach other subjects... sharing those ideas sharing resources, just hear other people's experiences and hear things that work for other people... it's interesting to see how things work in schools that are both similar to your own but also with kids that are very different as well so, it's interesting that, I enjoy doing things like that.' <b>NQT7</b></p>

(Continues)

TABLE 3 (Continued)

2.1 Sociocultural factors	
2.3 Material factors	
<b>F1 participants</b>	
Q57: <i>I lived in the hospital accommodation so... there's a group of about seven or eight of us... living pretty close so you always meet up after work and have a rant about things which I think is quite cathartic really I think it's quite necessary and it's not you know it's not some patting on the back and drying your tears and all that kind of stuff... but it's good because you can get some things off your chest and just discuss things.</i> <b>MT_A_P6_Other F1s and F2s</b>	
<b>NQT participants</b>	Q58: <i>I think the nature of the department I'm in means that I don't feel that isolated I'm, erm the way my room's set up is I'm deliberately supported by the more senior members of department so the head of department's right next door to me, opposite me is the second department, erm so, in that aspect physically I don't feel isolated [and] people tend to pop in so I don't really feel like I'm on my own.</i> <b>NQT4</b>

*F1 participants.* The code after each quote (e.g., FT\_A\_P1\_Nutritionist) refers to the gender of the participant—female trainee (FT), male trainee (MT), gender not known (T)—followed by the data source type—single participant interview (I), group interview (G), audio diary (A)—a unique reference number to identify each participant quoted (P1, P2, etc.) and the type of staff providing support, if relevant (e.g., Nutritionist).

*NQT participants.* The code after each quote (e.g., NQT1\_O\_Subject mentor) refers to a unique reference number to identify each participant quoted (NQT1, NQT2, etc.), where relevant how support was offered to or sought by NQTs—formal (F), initiated by the other member of staff (O), 'checking in' (C), informal (I), initiated by the NQT (N), unknown (U)—and the type of staff providing support (e.g., Subject mentor).

HCPs supported collaborative working. Formal hierarchies were described by F1s as creating barriers to seeking support<sup>Q46</sup>, due to fears of negative consequences. Hierarchies seemed less immediately apparent in the teacher data, but interpersonal conflict between NQTs and seniors sometimes occurred<sup>Q47</sup>.

## Organisational factors

This theme encompassed aspects such as staff availability, inductions, organisational systems and workload. Availability of staff, especially seniors, was mentioned by both professions but seemed more problematic for F1s, due to 'out-of-hours' shifts<sup>Q48</sup>, staff working in different wards or operating theatres, staff shortages and high workloads<sup>Q49, Q50, Q51</sup>. Some F1s turned to alternative staff such as nurses, microbiologists or pharmacists, who seemed more readily available. Some teachers described almost daily contact with subject mentors<sup>Q52</sup>, whereas others struggled to obtain support from seniors who were affected by time pressures<sup>Q53</sup>, performing multiple roles<sup>Q54</sup> and social norms or material school layouts which inhibited informal contact.

The focus of the doctor analysis was informal support, so induction procedures were not examined in depth, but inductions appeared to vary widely between wards and departments. The high workloads and fast pace of wards<sup>Q55</sup> could also lead to perceptions of insufficient time to seek help. During teacher interviews, questions were left fairly open so teachers could decide themselves what they perceived as support. Other organisational factors described as potentially supportive included whole-school behaviour or 'on-call' systems, pupil 'passports' for SEN students, induction procedures, team composition (e.g., long-serving teachers working alongside newer ones) and CPD time. In addition, some schools or departments organised group training and social events, providing opportunities to meet others and facilitating future support<sup>Q56</sup>.

## Material factors

Material factors related to the physical workplace such as size, layout and spaces available. This was a small but important theme in the teacher data, as NQTs described how being physically close to official or informal mentors<sup>Q58</sup>, meeting staff while moving around school and shared office or break rooms promoted social interactions—encouraging future support. Teacher participants also reflected on how department size could influence support; for example, in small departments close bonds might develop but this could alternatively lead to isolation if departments felt unsupportive. These findings inspired a revisiting of the medical data, and some references to support being facilitated by shared spaces such as 'mess' rooms or trainee accommodation were noted<sup>Q57</sup>.

## RQ4: How do F1s and NQTs respond to these factors?

This question aimed to capture the strategies of new professionals as they responded to, navigated and overcame various barriers to obtaining support (see [Table 4](#) for illustrative quotes). Both F1 and NQT participants told 'stories of agency' where they proactively sought opportunities for learning and feedback. For F1s these efforts could be inhibited by the challenge of balancing service provision against learning<sup>Q59</sup>, securing time with seniors and feeling confident to ask questions<sup>Q60</sup>, request explanations or seek second opinions. F1s and NQTs sometimes went beyond formal supervisors, mentors and other seniors to

TABLE 4 Stories of agency: F1 and NQT responses to features of their working environments

3.1 Initiating learning experiences or requesting feedback	
<p>F1 participants</p> <p>Q59: <i>'And I'll say right, so if anything needs to be done now I wanna do it, because I wanna get better, like I wanna improve my skills for me, but I can only do that when I've got time because I've gotta be looking after the patients the rest of the time so, it's just getting the balance of my education against my job.'</i> <b>FT_G_P23</b></p> <p>Q60: <i>'I think one thing that I learnt at medical school which has come in really helpful is never to be afraid to ask... there's no such thing as a stupid question... you've got to say when you don't know things because it's in everyone interest, there's a few people who might try and humiliate you and take the mick so to speak but I think you've always got to [ask].'</i> <b>MT_G_P6</b></p>	<p>NQT participants</p> <p>Q61: <i>'So I will go down there [behaviour unit], and talk to the members of staff down there as well, and they're normally really helpful... A lot of the time that's been off my own back, I've been like right I want to help that student, I'm going to go and see these people, erm whereas they say teachers don't often do that.'</i> <b>NQT9</b></p>
<p><b>3.2 Seeking alternative sources of support</b></p> <p>Q62: <i>'When I was on call and I didn't have any other doctors around just nurses on the ward I'd often say to the nurse, because I know they tend to have years and years of experience and have seen it all before, I'd ask do you think that's okay, and to be honest I even ask nurses for the doses of drugs because they give the drugs out they're very good on doses of drugs.'</i> <b>FT_G_P15</b></p> <p>Q63: <i>'I would say it's all what's available at the time so I think a junior doctor that doesn't use those resources is a very ignorant junior doctor because nurses are invaluable and the midwife you know and will continue to be invaluable for the rest of my obstetrics.'</i> <b>MT_I_P28</b></p>	<p>Q64: <i>'And also unions... I found them really helpful, and there's actually that psychological, erm pastoral care... they provide that... I didn't know that until afterwards, but I think it's really important for newly qualified teachers to actually belong to the union.'</i> <b>NQT1_U_Union</b></p> <p>Q65: <i>'We spent an entire evening with her being there like – this is how I would engage them, this is how I would start, like this is where you need to go from with your class because I was in, a massive black hole of – I don't know what to do with them, and she just, helped me plan, like a short-term plan, even though I've never met her. So, yeah, lovely people on Twitter.'</i> <b>NQT3_Social media</b></p>
<p><b>3.3 Autonomy versus seeking support</b></p> <p>Q66: <i>'[There's] some foundation doctors that who are very confident and you sort of think it's almost verging on the arrogant and at that end you worry are they making rash decisions or decisions that are over their head... then you have people at the other end who don't have the confidence to say what they think or stand up for what they what they believe in... Something you gain with experience [is] knowing where your limitations as a doctor lie and once you've reached those limitations who to escalate the situation to... there's absolutely no problems and no shame in calling for help.'</i> <b>MT_A_P16</b></p> <p>Q67: <i>'You definitely do get pushed into making decisions you're not comfortable with... and a lot of the time in medicine you're left without senior support because they're on call and you're the only person on the team and maybe your consultant's in clinic and you don't feel like bothering them for a small problem that you would otherwise go to an SHO for so I think practical procedures I wouldn't sort of do things without assistance but making decisions on the ward sometimes you do feel a little bit out of your depth without having someone senior around.'</i> <b>FT_G_P15</b></p>	<p>Q68: <i>'I've been able to, take control as much as possible, so erm I went on one where I, had to like... go get all the tickets get all of it sorted make sure that everything was like ready before we then let them in the theatre, so it was two theatre trips so we went to [ ] and they were with different members of staff, and although one was with the deputy CEO of the trust who was massively revered by all, he all but let me take charge of the trip cos he was there like – I've done the paperwork, you can lead the trip, next time, we'll help you run your own trip like do the paperwork stuff, so in terms of learning how to do things it's really helpful.'</i> <b>NQT3</b></p> <p>Q69: <i>'I think there's actually a risk of, from speaking to some of my friends, there's a risk of erm not having enough experience in your NQT year, which then if you don't want to stay in that school can really limit you.'</i> <b>NQT5</b></p> <p>Q70: <i>'It's exhausting, erm and I remember that first term I just was so stressed and... I was really upset and I think I cried like once (laughs)... I didn't tell work about it I kind of just kept it between me and my partner, and then when it came to half term I dedicated a couple of days to it and then I got myself ahead, and that's how I've always done it since.'</i> <b>NQT8</b></p>
<p><b>3.4 Understanding ward culture and making contacts and building relationships</b></p> <p>Q71: <i>'You sort of have to go in and sort of find the person who is doing your job at the moment... and say like can you show me where everything is... can you show me where the list is you know where different things are you know and anything specific I need to know about like tests and that sort of thing.'</i> <b>MT_G_P29</b></p>	<p>Q72: <i>'You don't need to know exactly who someone is or... go out of your way to do anything special y'know I just popped in to say happy birthday and then this whole conversation about y'know "Are you alright, do you need any help" kind of thing, y'know sparked off and, they're kind of good people to know.'</i> <b>NQT7</b></p>

TABLE 4 (Continued)

3.1 Initiating learning experiences or requesting feedback	
F1 participants	NQT participants
<b>3.5 Reciprocity (helping others)</b>	
Q73: 'I don't feel I'm treated necessarily like the trainee I feel like I'm treated like a co-worker so that's... if people come and ask me for stuff it's more, they want support with something rather than everyone feels that they need to look out for me.' <b>NQT4</b>	

*F1 participants.* The code after each quote (e.g., FT\_A\_P1\_Nutritionist) refers to the gender of the participant—female trainee (FT), male trainee (MT), gender not known (T)—followed by the data source type—single participant interview (I), group interview (G), audio diary (A)—a unique reference number to identify each participant quoted (P1, P2, etc.) and the type of staff providing support, if relevant (e.g., Nutritionist).

*NQT participants.* The code after each quote (e.g., NQT1\_O\_Subject mentor) refers to a unique reference number to identify each participant quoted (NQT1, NQT2, etc.), where relevant how support was offered to or sought by NQTs—formal (F), initiated by the other member of staff (O), 'checking in' (C), informal (I), initiated by the NQT (N), unknown (U)—and the type of staff providing support (e.g., Subject mentor).

find alternative sources of support, such as allied staff<sup>Q61, Q62, Q63</sup>, outside organisations<sup>Q64</sup>, professional networks and social media<sup>Q65</sup>.

Both professions spoke about carefully balancing support-seeking against autonomy and perseverance. In medicine, this could mean making difficult decisions about when to escalate care<sup>Q66</sup>. In teaching, it might involve experiencing autonomy with appropriate scaffolding<sup>Q68, Q69</sup>. However, where support was insufficient, this could result in novices feeling they had to be 'in control', make decisions alone<sup>Q67</sup> or 'push through'<sup>Q70</sup>. F1s and NQTs went out of their way to build relationships; for example, F1s visiting upcoming placement sites<sup>Q71</sup> and NQTs building relationships with teachers and support staff beyond their department<sup>Q72</sup>. Both F1s and NQTs conveyed ideas of reciprocity in their narratives, stressing the importance of making contributions to their teams, not just being recipients of support<sup>Q73</sup>.

## Model of workplace support

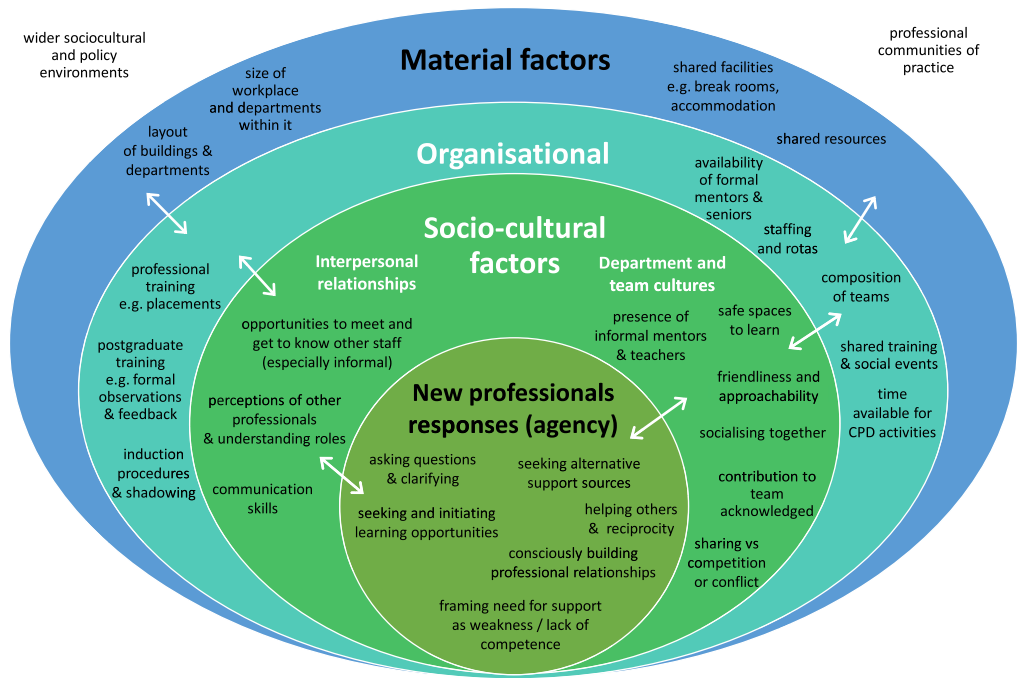
Drawing these findings together, a model of workplace support for new professionals in 'hot-action' environments such as teaching and medicine was developed (Figure 2). This illustrates the multiple levels of factors influencing support and how these interrelate, suggesting that small changes to workplace practice could improve support for novice professionals. For example, shared training events or conferences for NQTs may facilitate opportunities to build wider networks of support, thus promoting social connectivity and encouraging agentic behaviours such as being alert to learning opportunities or asking questions. Similarly, providing mess rooms and social events for new doctors may break down interprofessional barriers and facilitate peer support.

## DISCUSSION

Through comparison of two professions, it was possible to identify a range of support sources and types, and factors influencing workplace support.

## Stories of support

Multiple staff provided support for new doctors, from doctors of various grades to nurses, pharmacists, microbiologists, GPs, social workers, physiotherapists, occupational



**FIGURE 2** A model of workplace support for new professionals in 'hot-action' environments.

therapists, nutritionists, healthcare assistants, midwives and porters. It has been acknowledged that allied health professionals are often overlooked as sources of support and supervision (Kilminster, 2010), despite evidence that shadowing schemes and feedback provision by nurses and pharmacists is beneficial for trainee doctors (Dornan et al., 2009; Noble & Billett, 2017; Parker et al., 2019). In some contexts, pharmacists, microbiologists and nurses experienced fewer organisational constraints, providing better access to prompt advice. In addition to aiding the development of clinical capabilities, other staff also supported F1s with orientation to local wards and socioemotional support. Peers and nurses were both cited as supportive in those areas, given similarity of status and on-the-ground knowledge of wards. Supporting doctors' emotional wellbeing, via informal debriefs and sharing of experiences, is crucial for staff retention, reducing burnout and patient care (West et al., 2016). Both here and elsewhere, induction provision was deemed inconsistent (Kilminster et al., 2011), with expectations that novice doctors will 'pick up' practical aspects like IT, paperwork (Sheehan et al., 2012) and role expectations (Miles et al., 2017). Nurses and peers might therefore help support F1 inductions. Finally, feedback is crucial for professional development (Archer, 2010), improving critical thinking and self-reflection, and being an indirect source of socioemotional support. Feedback directly following observation of practice was particularly valued by these F1s, a practice which could be further encouraged (Quantrill & Tun, 2012).

In general, teacher participants received support from experienced teachers, potentially smoothing transitions to independent practice. Collaborative activities such as co-planning can reduce intentions to move schools or leave the profession (Smith & Ingersoll, 2004), and socioemotional support promotes good mental health and job satisfaction (Kinman et al., 2011). Behaviour support teams and TAs who supported students with behaviour and emotional wellbeing were described as helpful, congruous with findings that classroom management is a consistent concern for beginning teachers (Melnick & Meister, 2008). Information and support regarding additional educational needs is vital for inclusive



secondary education (Ellins & Porter, 2005; Hodgkinson, 2009), but our analysis indicated that not all new teachers were aware of what allied staff can offer. Many new teachers feel underprepared for SEN (Coates, 2012; Ginnis et al., 2018), despite incorporation into ITT standards (MacBlain & Purdy, 2011) and efforts to improve training through collaboration with SENCos (Golder et al., 2005). Potentially, school inductions and INSET days could include information on local SEN provision and encourage relationship-building with allied staff. Few teacher narratives mentioned direct contact with speech therapists, occupational therapists and social workers, and the limited research available suggests such interactions are highly constrained by time and workload (Baxter et al., 2009; Benson et al., 2016; Bronstein & Abramson, 2003; Hartas, 2004). One NQT was enthusiastic about support from a mindfulness coach to recognise and manage emotions. Given evidence that mindfulness and yoga can reduce teachers' occupational stress (Abenavoli et al., 2013; Harris et al., 2016), such emotion-regulation strategies might also be incorporated into ITT programmes (Sutton, 2004). However, wellbeing initiatives alone are insufficient to support mental health unless combined with measures which tackle underlying systemic pressures such as workload or performativity cultures (Bubb & Earley, 2004; Education Support, 2020). Teaching unions are another potential source of information and counselling (e.g., NASUWT, 2020; National Education Union, 2019; UNISON, 2019), and details of these could be included during training. Some teachers additionally gained advice or emotional support from family and friends. This is an under-researched area but international studies report that support from family and friends can be 'integral' to new teachers' wellbeing during stressful times (Price & McCallum, 2015).

## Communities of practice and technology

In this study, NQTs were also supported by wider teacher networks via conferences and training, peers and social media. Such 'communities of practice' (COP) have been shown to reduce teacher isolation (Patton & Parker, 2017) and support personal and professional growth (Trust & Horrocks, 2017), with consequent gains for teaching quality and student attainment (Doğan & Adams, 2018). Given time constraints or lack of local peer networks, teachers can access similar benefits through participating in online professional communities, including development opportunities, sharing of experiences, inspiration and personalised guidance (Bissessar, 2014; Carpenter et al., 2020; Dille & Røkenes, 2021; Duncan-Howell, 2010; Hur & Brush, 2009; Rehm & Notten, 2016). Such communities can facilitate informal learning, including subject-specific knowledge and guidance on educational technologies (Lantz-Andersson et al., 2018). However, teachers vary in their attitudes towards online communities (Lock, 2006; Moore & Chae, 2007), given equal potential to save time or distract, be a valuable resource or source of stress (Duncan-Howell, 2010), and some NQT participants accessed online resources without engaging with others. The F1 data mentioned the internet and mobile phone 'apps' as information sources, an increasingly common practice in medicine (Dimond et al., 2016). Research suggests that doctors increasingly use social media for educational purposes (Chan et al., 2020; Guraya, 2016) and participate in 'virtual' communities, which 'extend the boundaries and reach' of medical practice, support development and provide medical updates (Ho et al., 2010). Professional curricula might therefore incorporate information on how these 'developmental networks' might help reduce isolation (Hramiak, 2010) and re-conceptualise traditional learning relationships by offering support opportunities from diverse mentors (Higgins & Kram, 2001). This seems especially pertinent given the rapid rise of remote learning as a result of the pandemic (Dash et al., 2022). Training programmes might also communicate the opportunities and limitations of technology as a source of information and professional development, balancing potential issues

such as accuracy, security and interpretation of information against benefits such as rapid access to resources and advice (Bullock, 2014; Curran et al., 2019; Dimond et al., 2016; Rukavina et al., 2021; Wallace & Kanegaonkar, 2020). Furthermore, it may be possible to provide explicit guidance during training on how new professionals can build 'external communities of practice' in real-life environments, in addition to any 'internal' COP they have developed with their educational cohort (Lee, 2018).

## Overcoming barriers to workplace support

Multiple barriers inhibited workplace support, including physical or perceived unavailability, workplace layouts, stereotypical attitudes, insufficient understanding of different professional roles and interprofessional communication. Multiple strategies may therefore be required to overcome these barriers.

Given that professional stereotypes can be resistant to change, raising awareness may be insufficient (Duguid & Thomas-Hunt, 2015). Indeed, perceived 'threats' to wellbeing or self-esteem in conditions of high stress and time pressure can encourage further rigidity (Gladstein & Reilly, 1985; Staw et al., 1981), professional silos and stereotyped thinking (Lavaysse & Probst, 2019). Therefore, the success of IPE programmes during training might be enhanced through better understanding of factors influencing successful attitude change (Michalec et al., 2017). Furthermore, given that knowledge transfer between learning environments and workplaces is often incomplete (Argote & Ingram, 2000), implementing sustained interprofessional collaborative contact within real-life working contexts may be more effective. For instance, providing opportunities to meet allied staff during inductions, outlining the support they offer, and when and how they can be contacted. Finally, providing positive feedback and showing appreciation for all team member contributions may reduce intergroup competition (Thomson et al., 2015). Similarly, facilitating inter-departmental contact may support moves towards workplace cultures which are collaborative across organisations (Day, 1999). Such combined measures may also encourage novice professionals to cross the boundaries of their own COP, to learn from the communities of others, in what has been referred to as 'landscapes of practice' (Hodson, 2020; Wenger-Trayner & Wenger-Trayner, 2014).

## Building relationships to facilitate workplace support

In addition to overcoming social 'barriers', building positive relationships within and outside the workplace can facilitate future support-seeking and provision. Ideally, workplaces would create supportive cultures, where all staff feel friendly and approachable—however, it seems that some professionals naturally incline towards teaching and supporting novices and, moreover, near-peers may be well placed to help. Given that willingness and ability to relate to novices are better predictors of mentoring success than seniority (Kilminster et al., 2007; Sunde & Ulvik, 2014), workplaces might draw upon these 'natural mentors' when allocating supervisors, building protected time into their roles and facilitating regular feedback conversations about their mentoring relationships (Lloyd et al., 2000; Ramani et al., 2006).

This analysis suggested that different categories of staff offer different types of support, and display differing strengths and limitations (Foster-Collins, 2020). Acknowledging this may help tailor workplace support—for example, if peers and near-peers are viewed as more approachable, they may be valuable for peer-mentoring schemes, peer-to-peer teaching, socioemotional support and inductions. Being exposed to multiple mentors can provide multiple perspectives, insulating against attitudinal norms which contradict novices' professional values (De Janasz et al., 2003). Providing informal opportunities to meet other

staff through interdisciplinary social and training events can help build working relationships. Material factors are also important, with provision of 'congregational spaces' such as staff rooms facilitating informal contact (Mawhinney, 2010; Solomon et al., 2006). In a recent survey, one-third of trainee doctors had no access to 'mess' rooms and another third reported existing provision as poor (General Medical Council, 2019). A trend towards shared canteens and fewer private areas for healthcare professionals is argued to inhibit knowledge exchange and promote feelings of de-professionalisation (Siebert et al., 2018). Therefore, a consideration of how physical spaces can encourage or inhibit relationship-building and knowledge-sharing could enhance workplace design. Such multiple measures to acknowledge the importance of informal support and building supportive workplace relationships could help go beyond the formal structures in place for new professionals, such as the New Early Career Framework for Teachers (Spicksley & Watkins, 2020) and competency-based assessments (Dornan et al., 2019).

## Creating environments of trust

To maximise the potential of novices to learn and seek support from others, organisations should aim to create environments of trust. This would recognise that some errors are inevitable given the inherent ambiguity of making complex professional judgements, where clear answers are not always readily apparent (Benbassat et al., 2011; Helsing, 2007). Conscious efforts to provide positive but honest feedback to trainees, with concrete suggestions for improvement, would boost novices' confidence, feelings of competence and value (Eraut, 2004). Senior staff and middle leaders can be highly influential in setting positive local sociocultural climates (Begley, 2001; Blumenthal et al., 2012), through modelling supportive behaviour and encouraging open dialogue across hierarchies.

## Cultivating agency

These stories of support also demonstrated that, although many novice professionals act agentially to seek support, agency also has a socially interdependent aspect (Bandura, 2001). Thus, the capacity of professionals to seek and make the most of support from others depends on cultivating environments within which agency can flourish. This may include mentors providing 'scaffolded' opportunities for responsibility and autonomy (Maggioli, 2012; Spouse, 1998).

## Strengths and limitations

The use of narrative data collection techniques helped ground the data in specific workplace events, helping overcome limitations of studies which produce generalised, de-contextualised responses. The cross-professional comparison of newly qualified professionals working in two different contexts, integrating primary and secondary data sources, was novel. The use of qualitative secondary analysis is growing, given efficiencies for researchers and busy participant groups, allowing full utilisation of data. A potential drawback is that the doctor data was older, although conversations with stakeholders suggest the issues identified remain relevant.

The doctor dataset was also larger than the teacher dataset. However, the in-depth nature of the teacher interviews, with focused questions on workplace support, produced 'denser' data (284 teacher 'narratives of support' compared to 568 medical ones) and was therefore adequately comparable, despite some limitations of geographical spread for the teacher data.

TABLE 5 Recommendations for practice

### Supporting new professionals in similar 'hot-action' workplace contexts

	Supporting foundation trainee doctors (F1s)	Supporting new secondary school teachers (NQTs)
<p><b>(i) Interprofessional working.</b> Identify key professionals and support staff who can help new professionals and use shadowing and IPL programmes to increase role understanding, challenge stereotypes and break down social barriers to improve communication.</p>	<p>Formal schemes of shadowing other medical staff, such as microbiologists, pharmacists, nurses and other allied professionals could provide invaluable learning opportunities for trainees, increase understanding of roles and build positive working relationships. IPL programmes could be extended into postgraduate training, to aid transfer of formal knowledge into local contexts. 'Communicating with other professionals' could be a skill taught in medical curricula, in addition to existing content on communicating with patients.</p>	<p>Pre-service training might include shadowing of TAs, to increase understanding of each other and how TAs and teachers can work well together in teams. In-service teacher training could also include information on SEN topics, delivered by SENCos and allied professionals from outside of schools, to meet gaps in knowledge expressed by new teachers in this area.</p>
<p><b>(ii) Inductions.</b> Provide inductions to help orientate new professionals to local environments, which give guidance on local 'ways-of-working' and include face-to-face introductions to staff who perform allied, specialist or support roles—so that novices are aware of who they are, what they do, where they can be found and the type of support they can offer.</p>	<p>First-year postgraduate doctors require greater support during orientation to every clinical placement (not just their first one), with better consistency of induction provision. Inductions might utilise the experience of nurses or near-peers on wards given their on-the-ground knowledge of local policies and procedures.</p>	<p>School inductions might also include introductions to allied support and behaviour staff to facilitate future support.</p>
<p><b>(iii) Peer support.</b> Draw upon peers and near-peers for activities such as inductions and create opportunities for novices to build social networks with these peers, such as group training, social events or buddy systems.</p>	<p>Peer-assisted learning (PAL) could benefit postgraduate doctors in their first year, given that peers and near-peers are regarded as more approachable, have a better understanding of their current experiences and are able to deliver information at the 'right level'.</p>	<p>Similarly, peers and near-peers are a potentially valuable resource of informal support for NQTs, due to their ability to relate to new teachers' experiences. This could be utilised through involving recently trained staff in NQT inductions, having regular 'new teacher' meetings for them to network and talk about issues and encouraging peer observation and feedback between NQTs.</p>
<p><b>(iv) Mentoring.</b> Use natural mentors and teachers within organisations, building sufficient time for mentoring activities into their job roles and formally acknowledging the importance of supporting new professionals in the organisation. Where possible, ensure that mentoring roles are distinct from assessment, appraisal and career progression, to reduce power differentials between mentors and mentees.</p>	<p>Trainees greatly value learning from senior staff on the wards, but the existence of a medical culture where trainees are treated as 'dogsbodies' rather than active apprentices still exists in some departments. This culture could be addressed through open discussions with seniors regarding cultures of learning, but seniors also need to be provided with sufficient time to provide informal teaching, observe junior staff and give constructive feedback.</p>	<p>Members of SLT and heads of department/faculty could be aware of ways they might influence local cultures of support, through the modelling of supportive behaviours and realistic expectations of novices.</p>

TABLE 5 (Continued)

Supporting new professionals in similar 'hot-action' workplace contexts	Supporting foundation trainee doctors (F1s)	Supporting new secondary school teachers (NQTs)
<p><b>(v) Facilitating social contact.</b> Create opportunities for staff to meet others informally, whether through provision of shared facilities in buildings, or social and training events, at the level of teams, departments and the organisation. This could facilitate future collaboration and support.</p>	<p>Informal opportunities to get to know other medical staff, such as shared facilities or social events, may help overcome some of the sociocultural barriers to obtaining support, such as perceptions of senior staff as being intimidating or fears around asking questions.</p>	<p>Encouraging informal contact between members of staff on a departmental and a whole-school level, via social and training events, provision of shared social facilities and office spaces. Encouraging and arranging for teachers to visit other departments and schools, to make observations of teaching, may provide inspiration, fresh ideas and perspectives. Extending provision of regional NQT conferences and training events, already available in some parts of England, could also facilitate contact between new teachers to form informal professional networks of support. This may be particularly useful for teachers working in small, rural or otherwise isolated schools.</p>
<p><b>(vi) Communities of practice.</b> Incorporate information on accessing wider professional communities, including online communities and the use of technology, into education and training routes.</p>	<p>Given that medical working environments will always be highly pressured, with a need to balance service provision against learning, postgraduate trainees may benefit from hearing how other recently trained doctors have successfully navigated their first year. This might include raising awareness of how to identify opportunities for spontaneous and informal IPL episodes during everyday practice.</p>	<p>Teacher trainees in ITT programmes may benefit from knowing how past NQTs have navigated their first year successfully, including the development of wider networks of support in and out of school, with peers, experienced teachers, support and admin staff, professional organisations and unions, face-to-face and online communities of practice.</p>
<p><b>(vii) Balancing agency against support.</b> New professionals require appropriately scaffolded opportunities for challenge and sufficient support, in order to build feelings of confidence, competence and belonging to the team.</p>	<p>Whole-system approaches to improving nightshift working would support foundation trainees and prevent them being placed in high-stress situations where they may feel pressure to take decisions alone.</p>	<p>Allowing NQTs to take the lead on small projects and activities can allow them to make contributions to their team and school, elicit positive feedback from others and enhance feelings of belonging.</p>

One further limitation is that some instances of support may go unacknowledged by participants. For instance, healthcare assistants were largely absent from F1 stories. HCAs are also under-represented in healthcare research (Osborne, 2019), and increasing new doctors' understanding of HCA roles may enhance the use of HCAs as support (Rusby et al., 2018; Spilsbury & Meyer, 2004). Conversely, given a focus on the provision of workplace support in the teacher interviews, it may be that trainees who received little to no support were less likely to participate. In the teacher data, one participant reported receiving little support at work, leading to non-completion of their NQT year, and it may be helpful to uncover similar stories through active recruitment of this group.

Lastly, there may be limits regarding transferability of findings beyond the United Kingdom, but the significant parallels between teachers and doctors suggest these findings will be of interest to international researchers and educators.

## Implications for policy and practice

Recommendations for supporting new professionals (Table 5) were developed in collaboration with stakeholders—including doctors and teachers, and their educators.

## Future research

To further explore interprofessional support, narrative data might be collected from allied staff such as nurses and SENCOs, to understand supportive roles from their perspectives, perhaps using direct observation or video-recordings of practice to support recall (Bull et al., 2013). Additionally, schools and healthcare settings with positive cultures of collaboration and support might be a further focus of study, to uncover the broad factors contributing to beneficial workplace cultures. Lastly, the model of workplace support might be tested, modified and used as a tool to understand the experiences of novice professionals in other 'hot-action' environments, to evaluate and improve the factors which enhance support.

## DATA AVAILABILITY STATEMENT

We intend that the data collected during this study, from 11 newly qualified teachers, will be uploaded to the UK Data Service archive, in anonymised form. The secondary analysis drew up already existing data.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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