

Workplace support for first-year early career professionals: a comparative analysis of newly-qualified doctors and secondary school teachers

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Abstract

CONTEXT: Both newly qualified doctors and teachers operate within 'hot action' environments, responding to constantly changing demands, and balancing routine responses against deliberate reflection. First-year transitions are particularly crucial, as these new professionals face steep learning curves and increased stress levels which can lead to poor mental health, burnout and attrition. This represents a loss of societal investment and negatively impacts upon student and patient outcomes. We know that the workplace is an important site of learning, where informal support from colleagues can aid transitions and professional development. Cross-professional comparisons are an under-used tool, which can shed light on parallels and divergences between different professional contexts, and help identify the features of workplaces which make them more supportive.

METHODS: A comparative research design was conducted in three integrated stages, to explore narrative data from early-career professionals in both medicine and education. First, a systematic secondary analysis of interviews and audio diaries, from 52 UK doctor participants in their first year of [foundation training](#) (F1s), to explore who provided informal workplace support, the types of support provided and factors influencing this. Secondly, collection and analysis of new narrative interviews with 11 [newly qualified teachers](#) (NQTs) working in English secondary schools, also exploring the support they received from others. Lastly, a comparative analysis of these findings to explore similarities

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and differences in support for these two professions, and identify over-arching factors which influence support seeking and provision for new professionals in 'hot action' workplaces. The main theoretical influence underpinning this analysis was that of structure and agency, which shaped the development of models of workplace support for newly qualified professionals so as to include a consideration of how the various features of workplace environments might enable or constrain individual agency.

RESULTS: The medical data analysis uncovered many additional support sources for F1s, including nurses, pharmacists, microbiologists, peers and near-peers, and a range of allied healthcare staff. These allowed F1s to draw upon different pools of expertise and experience, given difficulties accessing senior support. NQTs often drew support from allocated mentors and seniors within subject departments, but some also obtained support from allied staff such as TAs, behavioural and learning support staff, or through wider teaching networks including those facilitated by social media. Support from colleagues for F1s and NQTs included: information and advice on practice, orientation to local settings, collaborative development activities, observation and feedback, and socioemotional support. Some common barriers to support were the variability of departmental cultures, limited opportunities for informal contact, and negative inter-group perceptions. However, a number of stories described how novices overcame barriers through agentic action, such as seeking support from alternative sources. A model of workplace support was devised which summarises the features of workplace environments which might influence the seeking and provision workplace support, at the level of the individual, social, organisational and material. This model might be tested within similar 'hot-action' workplace environments, used as a tool for future research, or to evaluate the extent to which specific workplace environments facilitate support for new professionals.

CONCLUSIONS: In both professional contexts, supportive working relationships could be enhanced through broad strategies which aim to break down barriers, build relationships, create environments of trust and cultivate professional agency. Such measures might include: greater utilisation of existing knowledge sources such as near-peers and allied staff; improved role understanding and better communication with specialised staff; creating opportunities for informal contact via shared social spaces, events and training; and communicating via professional education the successful strategies used by previous early-career professionals to meet their support needs. Future research might further explore the features which underlie positive local cultures of supportivity, as well as developing ecological or whole-systems approaches to understanding workplace support.

Keywords: interprofessional learning, interprofessional support, interprofessional collaboration, informal workplace learning, practice-based learning, on-the-job learning, postgraduate medical education, postgraduate teacher training, workplace support, newly qualified doctors, newly qualified teachers, cross-professional comparisons, comparative study, early career professionals.

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*I dedicate this work to my mother, Sandra Margaret Foster (1942~2018)
who never stopped making lists of books to read ♡*

Definitions

Character tropes

Social stereotypes of groups of people who share similar characteristics, including manners of speaking and types of actions¹.

Emotional labour

The 'effort, planning and control needed to express organisationally desired emotion' during interactions with others at work^{2(p. 987)}.

Formal learning

Learning which is structured, with pre-specified activities and outcomes, delivered by a designated teacher/s and endorsed by the employer.

Generalised incident narratives (GIN)

One (or more) participants recounting an event that frequently occurs. Rather than describing a specific situation, they provide a generalised story about what typically occurs – e.g. 'it happens all the time...'

Informal learning

Learning which is unstructured and (relatively) unplanned, which relies upon an individual learner or teacher responding to the needs or opportunities of the moment.

On-the-spot learning

‘On-the-spot’ learning is that which occurs in response to immediate events on recognition of a learning opportunity³. This has also been described as ‘emergent learning’ as, although these are deliberate attempts to take advantage of current situations to increase knowledge and skills, unlike formal learning, the learning strategies are not pre-planned but emerge from current events and are adaptive in nature⁴. Recognising opportunities for learning is something which may be done by learners themselves, or by others in their environment.

Personal incident narratives (PIN)

One (or more) participants recounting a specific event that they have personally experienced.

Secondary analysis

The ‘re-use of pre-existing qualitative data derived from previous research studies’ to ‘verify the findings of previous research’ or ‘investigate new or additional research questions’⁵, which ‘presents interpretations, conclusion of knowledge additional to, or different from, those presented in the first report on the enquiry as a whole and its main results’⁶.

Social and emotional support

Interpersonal working relationships which ‘promote the wellbeing or coping abilities of the recipient’^{7(p. 75)} and may encompass both behavioural and emotional interactions, as well as perceptions regarding the ‘adequacy or availability of different types of support’^{8(p. 16)}

Workplace learning

Learning which derives its purpose from the context of employment..[which] goes beyond training, which is narrowly focused on the immediate task and restricted to business needs, but involves “learning in, through and for the workplace.”^a

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.

^aas described in the book ‘Improving Workplace Learning’⁹ and based on a definition by the Workplace Learning Task Group, reporting to the National Advisory Group on Continuing Education and Lifelong Learning^{10,11}.

Abbreviations

ANP advanced nurse practitioner. 93

BEd Bachelor of Education. 46

BMA British Medical Association. 54, 175

BME Black and Minority Ethnic. 52

BSAC British Society for Antimicrobial Chemotherapy. 173

CBD case-based discussion. 43

CCU critical care unit. 228

CEO chief executive officer. 236

CPD continuing professional development. 50, 92, 367

DOPS direct observation of procedural skills. 43

EWTD European working time directive. 59, 334

F1 foundation year one trainee doctor. 12, 15, 17, 29, 40–43, 50, 51, 60, 62, 66, 77, 186, 189, 190, 194, 195, 199, 201–204, 206–209, 213–220, 222, 225, 226, 326–330, 332, 334, 335, 337, 338, 350, 364, 366, 367, 379–384, 386–389, 429

F2 foundation year two trainee doctor. 41, 186, 203, 214, 222, 429

Abbreviations

FE further education. 46

GIN generalised incident narrative. 22, 176, 200, 203

GMC General Medical Council. 41, 53, 72, 174

GP general practitioner. 41, 62, 202

HCA health care assistant. 118, 350, 383, 384, 387

HCP healthcare professional. 202

HEE Health Education England. 42, 60

HTLA higher level teaching assistant. 63, 119, 299

INSET in-service education and training. 50, 342

IPE interprofessional education. 31, 332, 333, 338, 363

IPL interprofessional learning. 333, 338, 363, 389

ITE initial teacher education. 102

ITT initial teacher training. 44, 45, 51, 53, 74, 102, 237, 244, 249, 342–345, 350, 356, 360, 434

mini-CEX mini-clinical evaluation exercise. 43

MMC Modernising Medical Careers programme. 41

NASUWT National Association of Schoolmasters Union of Women Teachers.
354

NG nasogastric (tubes). 209

NHS National Health Service. 70

NIPT National Induction Panel for Teachers. 48

NQT newly qualified teacher. 12, 17, 18, 29, 40, 44, 46–49, 51, 52, 55, 56, 61, 77, 82, 178, 179, 181–183, 189, 190, 199, 233–237, 239–243, 247, 254, 257–259, 262–265, 267–276, 278–281, 283, 284, 326, 339–357, 359, 360, 364, 366, 367, 376, 377, 379–383, 386–389, 434

OFSTED The Office for Standards in Education. 355

PAL peer-assisted learning. 332, 338

PGCE post graduate certificate in education. 45, 46, 55

PIN personalised incident narrative. 23, 176, 200, 203

PPA planning, preparation and assessment. 47, 60

PRP performance-related pay. 65

QTS qualified teacher status. 15, 44–48, 55

RCN Royal College of Nursing. 93

SCITT school-centred initial teacher training. 46, 237

SEN special educational needs. 62, 237, 280, 341, 389, 428, 436, 442

SENCo special educational needs coordinator. 62, 117, 342, 358, 359, 440, 442

SEND special educational need and disability. 342, 358, 384, 389

SHO senior house officer. 56, 228

SLE supervised learning event. 41, 43, 191

SLT senior leadership team. 360

STPCD school teachers' pay and conditions document. 59, 354

Abbreviations

TA teaching assistant. 118, 237, 308, 341, 350, 358, 359, 443

WBL work-based learning. 87

1 Introduction

1.1 Overview

This study explored workplace support for newly qualified professionals and the factors which can influence this, with a particular focus on the experiences of newly qualified doctors in the UK (foundation year one trainee doctors - F1s) and newly qualified secondary school teachers in England (NQTs). A qualitative methodology was employed, with stories of support by new professionals being identified within narrative data (section 4.3), and was underpinned by a broadly social constructionist stance which acknowledges the multiple ways in which social phenomena may be interpreted and understood (section 4.2). It also drew upon theories of agency and structure, which examine the ways in which individuals interact with their surrounding socio-cultural environments and how these environments may support or inhibit individual agency.

A thematic framework analysis of the narrative data was conducted in three integrated stages (section 4.9.1): a secondary analysis of previously existing data from F1 doctors, analysis of new data collected from secondary school NQTs, and a comparative cross-professional analysis of these datasets and the broad themes which had been identified during the previous stages. An additional analysis was undertaken using the concept of character tropes to further explore a theme relating to perceptions of other staff and professional stereotypes.

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Some quantification of data was also used to help illustrate patterns in the data, regarding which staff provided support to doctors and teachers and the types of support they provided. A number of theories and models were drawn upon during the processes of identifying and modifying research questions, conducting the data analysis, and formulating models of workplace support (section 4.2.2). However, the main overarching theoretical influence was that of structure and agency, which underpinned the analysis of barriers and facilitators to workplace support and newly-qualified professionals' responses to these factors.

The aims of this research were to identify which types of support were provided to new doctors and secondary school teachers during their first year of practice, the features of workplaces and organisations which might facilitate or inhibit support for these professionals, and the ways in which F1s and NQTs themselves responded to and navigated their environments to obtain support. This was with a view to developing models of workplace support in medical and educational contexts, but also more broadly for new professionals in analogous workplace settings. These might form the basis of recommendations for policy, practice and professional education, to help support transitions for new professionals as they move from formal training into the workplace.

1.2 Background to research

The context of this study is one of high levels of attrition and poor mental health in both medicine and teaching^{12,13,14,15} (sections 2.3.14 & 2.3.15), with statistics suggesting that almost half of junior doctors choose not to move into specialist training after completing postgraduate [foundation training](#)¹⁶, and similar numbers of teachers having expressed intentions to leave within the next five years¹⁷. Transitions into practice (section 3.3.3) have been identified as crucial periods

for new professionals, as they face greater levels of responsibility and independence, orientate themselves to new environments, and learn to apply previously attained knowledge in professional contexts. This may be particularly true for professionals such as doctors and teachers^{18,19}, who operate within dynamic, busy, high-stress workplaces, which have been referred to as 'hot action' environments (section 2.3.6). The loss of professionals from service sectors such as education and medicine represents a loss to society in terms of the time and monetary investment required to produce such highly trained individuals (section 2.3.5). Attrition and poor mental health can also have negative consequences for student and patient outcomes^{20,21,22,23}. Informal learning and support from others in the workplace forms a significant part of learning to be a professional^{24,9} (section 3.4), and may include information and advice, spontaneous and collaborative activities, observations and feedback, and socioemotional support. If effective, such support has the potential to aid transitions, facilitate professional development, promote good mental health and reduce decisions to leave.

In the literature review which follows (section 3.4) we can see that research on workplace support for new doctors and teachers has tended to focus on specific areas. For instance, in medicine, past studies have looked at medical graduates' preparedness for practice and how this might support their transition into foundation training. They have also examined whether interprofessional education (IPE) during medical school programmes prepares graduates for working in interdisciplinary teams. However, less research has explored informal sources of workplace support for foundation trainees on clinical placements, or the extent of informal support provided by allied professionals and support staff. In education, there have been a number of studies which examine school culture, and how new teachers become socialised into the profession of teaching, as well as those highlighting the importance of effective mentoring. However, little research has

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investigated workplace support for new teachers more broadly, to identify the wide range of people they may gain support from and what features of schools facilitate this. This study therefore aims to identify the wide range of support types provided to new doctors and teachers, and who provides this support. It also seeks to uncover any gaps in provision and the broad factors which influence this in local contexts. Finally, it aims to understand how professionals themselves can enact agency to obtain support in their workplace environments, which may inform education of professionals to help them navigate future transitions into the workplace.

Cross-professional comparisons are a relatively under-used yet beneficial tool, which can aid the identification of broad underlying features of workplace contexts and support the development of theoretical models^{25,26}. In this research, the professions of medicine and teaching were selected on the basis of a number of broad similarities which exist between them, whilst also appreciating their differences (section 2.3.1). The aims of this cross-professional comparison were two-fold. First, to identify specific issues which affect workplace support for each of these two professions, with a view to producing tangible recommendations for professional education and practice. Secondly, to identify broader issues affecting workplace support for novice professionals more generally, within similar working contexts. This aids the development of theory relating to workplace support. To the author's knowledge, this is a novel methodological approach for investigating workplace support for new professionals; in terms of the narrative data collection methods used, which ground the data in specific, recent events; the comparative analysis of data from new doctors and teachers; and integration of primary and secondary sources of qualitative data. Although there will be limits to the extent that these findings might be generalisable beyond the UK, there are significant overlaps in the workplace contexts and professional practices

of teachers and doctors around the world, which may make these findings of interest to medical and educational researchers internationally (section [8.5.3](#)).

1.3 Research questions

The research questions addressed by this study were as follows:

- **RQ1: Who supports F1s and NQTs in the workplace during their first year?**

- **RQ1.1** Who do F1s describe as supporting them informally in the workplace?

- **RQ1.2** Who do NQTs describe as supporting them in the workplace?^a

- **RQ2: What types of workplace support are provided to F1s and NQTs?**

- **RQ2.1** What types of support do F1s describe as being provided?

- **RQ2.2a** What types of support do NQTs describe as being provided?

- **RQ2.2b** How is support described as being offered to or sought by NQTs?

- **RQ2.2c** What gaps did NQT participants narrate as existing in their support?^b

- **RQ3: Which factors influence (help or hinder) workplace support for F1s and NQTs?**

- **RQ3.1** Which factors do F1s describe as influencing their workplace support?

- **RQ3.2a** Which factors do NQTs describe as influencing their workplace support?

- **RQ3.2b** What suggestions did NQTs have for improving future support?^c

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

- **RQ4.1** How do F1s describe responding to these factors?

- **RQ4.2** How do NQTs describe responding to these factors?

^aThis question encompassed all forms of support mentioned by participants, both formal and informal (see section 4.8.2)

^bDue to differences between the primary and secondary data sources, it was not judged possible to answer questions similar to RQ2.2b and RQ2.2c adequately for F1 participants (see section 1.3)

^cThis question was asked of NQT participants towards the end of their interviews (see section 4.8.2)

- **RQ5: What similarities and differences were found between these findings for F1s and NQTs:**

RQ5.1 with regard to the types of support provided?

RQ5.2 with regard to the types of people who provided support?

RQ5.3a with regard to the factors which influenced support provision?

RQ5.3b with regard to perceptions of other staff, as indicated by the professional character tropes identified in participant narratives?

RQ5.4 with regard to how they responded to these factors?

RQ5.5 In addition, what further analytical findings resulted from using the teacher data as a lens to re-examine the medical data?

1.4 Research outcomes

1.4.1 Contributions to knowledge

- This research has produced new data and analytical findings relating to experiences of workplace support for newly qualified F1 doctors and secondary school NQTs.
- The use of narrative data had the advantage that these experiences were grounded in specific experiences of support, which may help overcome some of the limitations of studies which produce generalised, de-contextualised responses.
- Models of workplace support for F1s and NQTs were developed on the basis of these analyses.
- This study also employed a novel research methodology, by conducting a cross-professional comparison of workplace support for new professionals in two professional contexts. Through integrating and comparing qualitative data from these two professions, the overarching features of workplaces which may facilitate or inhibit support for new professionals more generally were identified.
- This led to the development of an over-arching model of workplace support, which might be tested, modified, and used as a basis for evaluating the conditions which facilitate support for professionals working in similar hot action environments.

1.4.2 Impact

This research has produced specific recommendations for education, post-graduate training and practice, to help improve workplace support for newly qualified doctors and secondary school teachers. These may be used to improve the

support which novice professionals receive from others in the workplace; to aid transitions, improve health and wellbeing, and reduce attrition. These recommendations were (and continue to be) developed in collaboration with stakeholders, including teacher participants, current doctors and teachers, and their educators.

1.5 Structure of thesis

Following on from this introductory chapter, **Chapter 2** provides a contextual understanding of the training pathways and workplace environments of newly qualified doctors (F1s) and secondary school teachers (NQTs). It also compares medicine and teaching with regard to various features of these professional roles and workplace contexts, in order to clarify the rationale for choosing these particular professions.

Chapter 3 reviews the literature on theories of workplace learning and feedback, the process of becoming a professional, and learning and support from others in the workplace.

Chapter 4 describes the methodology employed in this research, with regard to underlying assumptions and theoretical stance taken, narrative data collection methods, thematic (framework) analysis, trustworthiness and ethical considerations. It also provides detailed descriptions of the methods used in each of the three stages, including data collection, analysis and integration of stages.

Chapter 5 presents the findings of the secondary analysis of data from F1 doctors in their first year of practice, describing themes relating to who provides support, which types of support are provided, factors influencing support seeking

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or provision, and F1 responses to these factors. It also illustrates these factors in a provisional model of workplace support for F1s.

Chapter 6 presents the findings of the analysis of data from secondary school NQTs in their first year of practice, describing themes relating to who provides support, which types of support are provided, how support is initiated, and factors influencing support seeking or provision. Findings are also described relating to NQT responses to these factors, the gaps in support they narrate as existing, and their own suggestions for how to improve support for future NQTs. It also illustrates these factors in a provisional model of workplace support for NQTs.

Chapter 7 first maps the terrain of new doctors and teachers, as described in F1 and NQT narratives. This sets the context for a description of the findings of the cross-professional comparison of F1 and NQT data and the broad themes identified in chapters 5 and 6. Next, follows a consideration of how the teacher data acted as a lens to re-examine the medical data and identify new findings. The strengths and drawbacks of using different categories of staff as sources of support are then considered. Finally, an over-arching model of workplace support for newly qualified professionals is presented, which may be used in future research, and as a tool to evaluate the factors in similar hot action workplaces which facilitate workplace support.

Chapter 8 discusses the findings presented in Chapters 5-7 in relation to past literature, making recommendations for practice and suggestions for future research, in the areas of medicine, teaching and busy professional environments more generally. The strengths and limitations of the methodology used are also considered. This chapter then draws the thesis to a close by providing a summary of conclusions.

Chapter 9 contains appendices, which include a chart summarising how different NQT participants' narratives related to the themes and sub-themes identified during analysis. It also contains information on different school-based teacher training routes, and documents relating to the collection and analysis of data.

2 Context

2.1 Introduction

This research looks at the informal learning and support of doctors and teachers in their first year of practice. Before exploring the experiences of these newly qualified professionals, it is useful to have a contextual understanding of the workplace environments in which these occur and the training pathways which have led them to that point. Therefore, a descriptive outline is given here of the routes which UK trainee teachers and doctors pursue to reach the status as a newly-qualified teacher (NQT) or foundation year trainee (F1), and the on-the-job training which they are provided with during their first year after qualification. Some similarities and differences regarding these two professional roles and their working environments will then be considered. This will help clarify why these two particular professions were chosen for study and comparison, and aid later cross-professional analysis.

2.2 Training paths and first year for doctors and teachers

2.2.1 Newly-qualified doctors: training

The route towards becoming a qualified medical doctor is relatively uniform across the United Kingdom, with students first completing four to six years of training in a General Medical Council (GMC)-approved university medical school, which consists of a number of academic modules and, more recently, often includes problem-based learning. Most medical school entrants are those entering university for the first time but a smaller number of graduate-entry places are also available²⁷. Once they have completed medical school in the UK, these new medical graduates are given provisional registration and can embark upon their foundation programme. This in-work training programme, which was implemented in all parts of the UK in 2005 as part of the Modernising Medical Careers (MMC) programme²⁸, usually takes two years to complete if pursued full-time²⁹. Typically, this necessitates carrying out a series of six clinical placements lasting four months each, at a number of different hospitals, clinics, and health centres, which provide opportunities to observe clinical practice in various medical specialities (such as paediatrics, surgery, psychiatry, or GP practice), carry out basic tasks regarding patient care, and take part in supervised learning events (SLEs) (see Box 2.1)^{30,31,32}. These postgraduate trainees are referred to as foundation year one (F1) doctors in year one and as F2s in their second year. Once they complete this, they can apply for further specialist training which takes a further three to eight years to complete^{33,34}. This medical training pathway therefore includes a number of key transitions: entry to medical school, moving from medical school to clinical practice, and from the foundation years to further specialism³⁵. It is this second transition, and the F1 year in particular, which is the key focus for *stage one* of this research. The purpose of this first year has been described

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by Health Education England (HEE) as providing ‘a safe transition from the undergraduate/student role to the postgraduate/healthcare provider role where the newly-qualified doctor takes on some of the professional responsibility for patient care for the first time’ and that this was best achieved by placing newly qualified doctors ‘in a supported and properly supervised role on the front line of patient care, as part of multidisciplinary teams.’²⁸ (p.15).

2.2.2 Newly-qualified doctors: Foundation year one

The first foundation year is a critical period for postgraduate trainee doctors, during which the knowledge and skills they have gained through formal training can be translated into ‘real-world’ medical practice. The aim of this is that they gradually develop into independently functioning and competent professionals, who also become an integral part of their medical teams. During this transition, F1s continue to receive a certain amount of formal training in the form of talks, presentations and group case discussions, although it has been noted that finding time for off-the-job formal training sessions can sometimes be difficult³⁶.

Trainees are also allocated educational supervisors, responsible for supervising their learning throughout the two-year foundation period, and clinical supervisors who supervise clinical learning and performance during each specific four-month placement³⁷. Sometimes these roles are performed by the same member of staff, and usually but not always, supervisors are doctors who have reached consultant status. These supervisors oversee trainees’ work to ensure patient safety, deal with any problems which arise, and give feedback on overall performance. They may also provide additional learning opportunities and are responsible for checking that F1s complete formal requirements for progression to year two, including at least three supervised learning events (SLEs) per placement (see Box 2.1).

Box 2.1 Supervised learning events (SLEs)

Supervised learning events (SLEs) consist of direct observations of procedural skills (DOPS); mini-clinical evaluation exercises which are observations of practice (mini-CEX); case-based discussions, which may take place at the time or after events have occurred (CBDs); and feedback on trainees' presentations on clinical topics (known as 'Developing the clinical teacher'). Although the primary aim of these learning events is to develop trainee doctor skills rather than assessment, they are often viewed as somewhat 'tick-box exercises' by both trainee and trainer³⁸.

Much of the practical 'know-how' obtained in the postgraduate trainee's first year is experiential in nature³⁹. That is, it is gained through on-the-job service provision by working alongside others, observing and learning from them, during their four-month speciality placements. In this year, F1s learn how to assess patients, formulate diagnoses, and make rapid clinical decisions. However, much of their daily work is also more mundane, involving following senior staff on ward rounds, relaying information to patients and allied staff, discharging patients, and doing tasks such as blood tests and paperwork. They therefore face the challenge of balancing their own professional learning needs against the practical requirements of service provision in what are often extremely busy and highly-pressured medical environments.

In addition to facing this steep learning curve as they put their clinical knowledge into practice, novice doctors must become oriented to their new working environments. The nature of the four-month placement system means that doctors continually need to familiarise themselves with new wards and departments, which involves amongst other things becoming acquainted with the 'local geography' and organisational procedures⁴⁰. These clinical placements also introduce F1s to the medical rota systems. As might be expected for a

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24-7 health service, these rotas include weekends and bank holidays, and in addition often require new doctors to be 'on-call' to attend other, unfamiliar wards. At the time that the doctor data in this study was collected, some of the foundation year doctors were experiencing night shifts for the very first time, as their medical school placements and shadowing experiences had only required day-time attendance on the wards. However, increasingly, medical trainees are being given experience of real working rotas, including nights⁴¹. Night shifts may extend for up to seven nights in a row, leading to 'excessive fatigue'⁴². In addition, it has been noted that pressures upon the UK health system mean that gaps in rotas arising from sickness or unfilled vacancies are frequently not covered, leaving shifts understaffed⁴³. In summary, the working environments of postgraduate doctors entering clinical practice for the first time presents many challenges for these new professionals.

2.2.3 Newly-qualified teachers: training

Newly qualified teachers, known as NQTs in the UK, are those which have completed an Initial Teacher Training (ITT) programme accredited by the Department for Education, and attained Qualified Teacher Status (QTS). Unlike UK doctors however, there are numerous routes by which teachers may achieve this. The principal routes are outlined in Table 2.1, adapted from a Department of Education (2016) report⁴⁴. These can be divided into two main pathways, school-led or university-led. However, all training programmes leading to QTS must include the same core elements: a minimum of 24 weeks classroom experience in at least two schools, academic study on topics such as pedagogy, teaching skills and classroom management, and regular assessments of teaching ability^{45,46}.

Table 2.1: Main routes to qualified teacher status (QTS)

Route	Percentage trainees (2015/16)	Recruitment and training design by	Training delivery by	Trainees as students or employees	Qualification awarded
University led undergraduate	16%	University	University	Student	BA, BSc or BEd with QTS
University led postgraduate	41%	University	University	Student	QTS and PGCE ¹
School Direct – Fee postgraduate	21%	School	Mix of school-centred providers and universities	Student	QTS, usually with PGCE ¹
School-centred ITT² postgraduate	7%	School-centred provider	School-centred provider	Student	QTS, usually with PGCE ¹
Teach First postgraduate	5%	Teach First	Teach First and university	Employee	QTS and PGCE ¹ , optional masters

1 Postgraduate Certificate of Education 2 Initial Teacher Training

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University-led routes are based in universities and further education (FE) colleges, may be undergraduate or postgraduate, and include both practical experience within local school placements and taught academic modules. Undergraduate routes generally take three to four years, and lead towards either a Bachelor of Education (BEd) - usually undertaken by prospective primary school teachers, or a BA/BSc degree which includes the specialist subject knowledge required for secondary education. A few undergraduate degrees allow students to opt into teacher training part way through the degree course, after gaining experience of teaching in secondary schools, providing a more flexible route for those less sure of career choice. Postgraduate teacher training courses generally last one year (if full-time), leading to QTS and a postgraduate qualification - usually a Post Graduate Certificate in Education (PGCE).

Although over half of teachers still train via university-led routes (see Table 2.1), the Government's recent white paper *Educational Excellence Everywhere* in 2016 recommended moving towards 'an increasingly school-led ITT system'⁴⁷. Currently, the main school-led routes are School Direct, School-centred Initial Teacher Training (SCITT), and Teach First. All of these lead to QTS, with some courses additionally leading to a PGCE or masters qualification^{48,44}. A further breakdown of the various school-led routes, and the differences between them for recruitment and training, can be found in appendix 9.1.

Given this multiplicity of training routes, it is likely that the experiences of trainee teachers before they begin their NQT year will vary widely, both in terms of the amount of classroom experience they have gained and the knowledge of educational theory they have accrued. Once teachers have achieved QTS however, they all need to complete the same statutory induction period. This involves being employed in a suitable school and teaching in classrooms for the

equivalent of one full academic year, or three terms. Part-time teachers complete their NQT over two years and must attain the equivalent amount of classroom experience. It is also possible for NQTs to do supply teaching, for no more than one term's continuous employment at any one school, thus extending the induction period for up to a maximum of five years. However, this experience does not count towards induction requirements, which must be undertaken during continuous periods of at least two terms in any given school. During this induction period, NQTs are monitored and regularly assessed against national 'Teachers' Standards'⁴⁹ as described below.

2.2.4 Newly-qualified teachers: The NQT year

The goal of the NQT year/s is for new teachers to complete a statutory induction period and demonstrate satisfactory performance, as regulated by the Teaching Regulation Agency, a part of the Department for Education known formerly as the National College for Teaching and Leadership⁴⁹. During this time NQTs work on a reduced teaching schedule, with no more than 90% of a full timetable so that they may carry out activities relating to their induction programme. This is in addition to the time which all teachers should be allocated within timetables for planning, preparation and assessment (PPA).

Furthermore, Department of Education guidelines⁴⁹ state that 'suitable monitoring and support programme(s) must be put in place' for NQTs to meet their professional development needs, including

- Being allocated an induction tutor who themselves holds QTS, and has the necessary skills, knowledge, experience and time to provide appropriate day-to-day monitoring, support, and guidance. This person should also be able to provide 'rigorous and fair judgements' on trainee teachers' progress with regard to meeting the teaching standards.

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- Regular observations of the NQT's teaching by their induction tutor, or other person holding QTS within or outside the school, with 'prompt' follow-up discussions to provide constructive feedback and identify development needs. These meetings are recorded in writing.
- Opportunities for NQTs to observe other experienced and effective teachers, either within their school or in another school.
- Regular and frequent reviews of progress, including identification of objectives relating to the teaching standards. Records should be made of the NQT's progress towards those objectives based on evidence of their teaching, and appropriate support measures provided to help them achieve these objectives. This may include interventions to assist novice teachers who are experiencing difficulties with aspects of their role.

Formal assessments of progress are undertaken at regular intervals, usually at the end of each term, during meetings with the NQT's induction tutor, headteacher or principal. These assessments are based upon evidence from preceding assessments and recent observations of the trainee's teaching. At each, written reports are produced to show the progress they have made towards the formal teaching standards. A final assessment meeting at the end of the induction period forms the basis of the headteacher or principals' final judgement on whether the NQT's performance is satisfactory, unsatisfactory, or whether an extension to the NQT period could be granted. Extenuating circumstances for this can include such things as a personal crisis, illness, or insufficient workplace support. This final assessment is sent to the appropriate body, which may be a local authority, certified teaching school, or the National Induction Panel for Teachers (NIPT). If an NQT is deemed to have 'unsatisfactory' performance then they are no longer allowed to teach within maintained schools in the UK, although they do have a right to appeal. However, it is the duty of the headteacher or principal to identify

2.2 Training paths and first year for doctors and teachers

when NQTs are experiencing difficulties and provide immediate support at that time, rather than waiting until assessment occurs. In this way, NQTs should be 'given every opportunity to raise their performance'.

It is the experiences of new teachers working in secondary schools in England which are the focus for *stage two* of this research study. Therefore the roles and responsibilities of secondary school teachers are briefly explored here. The role of teachers in secondary education is to 'support, observe and record the progress of pupils aged 11 to 18'⁵⁰. As part of this, they must plan and deliver lessons in line with the national curriculum for their subject areas, keeping up-to-date with changes and developments regarding their subject knowledge, the curriculum, teaching methods and practical resources. Teachers need to differentiate their schedules of work to meet the needs of children with different abilities including additional educational needs, give feedback on pupil's work, keep records demonstrating progress, and prepare students for exams. They are also responsible for managing behaviour inside and outside the classroom, and often take on pastoral roles such as being a form tutor or head of house. Teachers require good communication skills, given that they participate in departmental meetings, talk about student progress at parent's evenings, liaise with other professionals, and supervise teaching assistants in their classrooms. These aspects of their role are additional sources of what has been described as 'emotional labour' (see section 2.3.13).

The official teaching year covers 39 weeks over three terms, but it is common for teachers to use much of the 13 weeks holiday to meet demands for planning, 'prep' and marking. Similarly, official working hours may extend from 8.30 in the morning til 3.30 or 4pm, but teachers frequently arrive earlier or leave later. They may also be obliged to attend after-school meetings and training

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sessions, and often continue with planning and assessment work at home during evenings and weekends. In addition, they may be encouraged or required to extend their workloads further by running extracurricular and sports clubs during lunch-times and after hours, or to accompany students on educational field trips, some of which are outside the UK. All teachers are required to participate in INSET days (in-service training) on non-pupil days and to continue their professional development (CPD) throughout their careers.

With regard to teacher working environments, there are wide differences between the state of the buildings and classrooms in which they teach, and the quality and number of resources available to them. Once qualified, secondary teachers tend to be based in one department throughout the teaching year, perhaps having connections to other departments if they teach additional subjects. Therefore, the challenge of orienting themselves to a new department usually happens only once at the beginning of that year, rather than the three times experienced by F1s. However, not all teachers have an allocated base classroom from which to teach and so must transport materials and equipment between classrooms throughout the day. All of these factors can also be indirectly related to whether the school is rural or urban, and school size. This is because state school funding is proportional to the number of students attending, with extra funding available for schools serving disadvantaged pupils as measured by eligibility for free school meals. In the 2017/18 academic year there were 3,436 state-funded secondary schools in England, with an average school size of 948 pupils⁵¹, though student numbers in some schools can be as high as 2,500⁵².

2.3 A comparison of the teaching and medical professions

2.3.1 Similarities and differences

Having described the training routes and working environments of foundation year doctors and newly-qualified secondary teachers, it can be seen that there are many clear differences between these professional roles. However, it has long been noted that there are also broad similarities between these professions, their training pathways and working environments, and it is these commonalities which make them fruitful to compare^{26,53}. Therefore, next will be considered these similarities and differences, looking at: the age and other demographic features of medical and ITT students, NQTs and F1s; motivations for entering the professions; the time and monetary costs of training; 'hot action' situations; the impact of hours and workload on personal lives; time spent in one location or team; inter-professional collaboration; public perceptions and status; professional identities; the impact of errors; emotional labour; recruitment and retention; stress and burnout; and parallels between professional development and training.

2.3.2 Age of trainees

The typical image which comes to mind when thinking of a medical school graduate is of a person in their twenties. Demographic figures suggest this is indeed largely the case, as approximately 81% of students accepted into medical school between 2003-9 were in the 17-21 age bracket, 10% were aged 22-24, and only 9% were 25 or older²⁷. Given these figures, a substantial proportion of post-graduate doctors entering the Foundation programme have been pursuing their medical careers from an early age, with the right choice of A-level subjects at 16 and subsequent high achievement in these being critical for entry to medical

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school. This represents a high degree of investment in time towards achieving doctor status. For teachers the picture is slightly different, with for instance, mature career-changers increasingly being targeted by school-based, salaried training programmes such as Teach Direct⁵⁴. Accordingly, only 37% of teachers who were not yet qualified in English schools in 2010 were under the age of 30, with the majority (60%) being between the ages of 30 and 59⁵⁵. This suggests that although there are a proportion of NQTs who set out to become teachers early on in their working lives, many more come to this decision at a later point.

2.3.3 Other demographics

Having previously discussed the age of trainees, other demographic characteristics of doctors and teachers in training will also be briefly considered. Here are quoted relatively recent sources of demographic data, for better comparison between medical and teaching trainees, bearing in mind that at the time the medical data were collected, figures would have differed slightly (though not majorly).

In 2018, NHS Workforce Statistics showed that around 63% of foundation year one doctors were White, 21% were Asian, and the remaining 15% self-reported as being Black, Chinese, Mixed race or Other⁵⁶. Similarly, a survey of medical students in 2015 showed their ethnicity recorded as 61% white, 31% BME (Black and Minority Ethnic) and 6% unrecorded (including those students who preferred not to say). Given that data from the last census showed the UK population to be 86% White, this suggests that non-white groups are well represented in medicine, at least at the level of medical school and foundation training⁵⁷. For teachers, the picture is slightly different, with 16% of postgraduate teacher trainees having reported belonging to a minority ethnic group in the academic year 2017/18, rising from 12% in 2013/14 and 15% in 2016/17⁵⁸.

2.3 A comparison of the teaching and medical professions

Teaching has traditionally been seen as a female pursuit⁵⁹ and today it is still the case that over twice the number of females enter postgraduate initial teacher training programmes as do males (69% versus 31% in 2016/17), although a slightly higher number of male trainees pursue secondary-school teaching (40% in that same year). The divide in medicine is less stark; according to reports by the General Medical Council (GMC) 56% of medical school students were female in 2017/18, and 57% of doctors in training (at all stages) were female in 2015, rising slightly from 56% in 2012⁶⁰.

With regard to disability, 10% of postgraduate teacher trainees declared a disability in 2017-18, showing a rise from 6% in 2013/14. Similar figures can be seen for medical students with 6.5% declaring a disability in the GMC Medical school report for 2011/12 and 10% in 2017/18⁶¹. However, it was noted that these doctors tend to receive insufficient support for their disability needs once they reach foundation training stage, which may cause some to drop out^{62,63}.

2.3.4 Motivations to train

Research looking at why teachers make the initial decision to go into teaching has been conducted with a view to improving recruitment strategies. A recent review⁶⁴ suggested that predominantly *intrinsic* (internal) and *altruistic* factors, rather than *extrinsic* (external) ones, are most influential on teachers' career choices. External aspects are important for some trainees; for example, career-changers may perceive teaching as fitting in better with family life, due to long school holidays and the possibility of planning at home⁶⁴, or may see teaching as a secure route to employment^{65,66}. Other trainees have had prior experiences of working in educational environments, providing them with an insight into the teaching role and perhaps boosting their confidence, or are influenced by family

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members⁶⁴. However, studies suggest that on the whole, teachers are less influenced by factors such as salary, promotions and status than non-teaching professionals⁶⁵. Rather, they are highly motivated by factors intrinsic to the role of teaching, such as enjoying working with young people and finding the activity of teaching itself rewarding^{67,68}. For secondary school teachers, there is the added motivation of pursuing a passion for their subject and the opportunity to pass this on to others⁶⁹. Teachers also frequently quote altruistic factors linked to the 'moral purpose' of teaching⁷⁰, such as wanting to help others and make a contribution to society^{71,72}. These ideas may relate to memories of their own schooling - either being inspired by teachers who had a positive impact on their learning^{73,69}, or motivated to 'make a difference' after poor experiences of education⁶⁶.

As per teaching, the top reasons cited by students for choosing medicine are chiefly altruistic in nature (helping people, doing work valued by society, and 'saving lives') or intrinsic to the role itself (enjoying the sciences, intellectual challenge)⁷⁴. Whereas, external factors such as earnings and status are deemed less important by doctors during the early stages of their careers⁷⁵. Many trainees describe the pursuit of medicine as a lifelong dream, often driven by the factors previously described, but sometimes arising from personal experiences of illness and treatment, or influenced by other people such as relatives⁷⁶. Medicine has also long been noted to run in families, with a fifth of doctors having at least one medically qualified parent⁷⁷.

2.3.5 Length of training and cost

The first-year trainee doctors in this study had already completed four to six years of training in medical school and were embarking upon a further two years of foundation training. Medical school is a costly business, with the British Medical

2.3 A comparison of the teaching and medical professions

Association (BMA) predicting that after recent tuition fee rises the average medical student will leave university with £70,000 in debt⁷⁸. If they then wish to enter a specialism, they need to apply for and complete a further three to eight years of training in their chosen area. Many doctors will need to move geographical location multiple times during foundation and speciality training to attend specific clinical placements⁷⁹, with an increased likelihood of this if they live in rural areas with low-density populations and larger distances between clinical sites. Therefore, the time and financial investment made by junior doctors is significant.

For teachers, it is possible to achieve qualified teacher status in three to four years, by completing a **PGCE** subsequent to obtaining an undergraduate degree (whether that be immediately afterwards or as the result of a career change), or through pursuing an undergraduate teaching course which includes QTS. Due to wide variations in training routes and funding, however (salaries and costs depending on course type, subject and specialism), it is more difficult to quantify the debts which new teachers face. One report by the Association of Teachers and Lecturers in 2004, estimated median teacher debts at £7,294, with a mean of £8,169⁸⁰. However, given that all teacher trainees in state-funded English schools are required to hold an undergraduate degree, and that BScs, BAs and BEds are now accompanied by much higher tuition fees than applicable in 2004, these debts may now be much higher. In 2017, the Institute of Fiscal Studies stated that the average graduate in England studying for three years would have debts of £50,800 - rising to £57,000 for students originating from poorer backgrounds⁸¹. Although this figure does not identify teaching graduates specifically, it suggests that debts accrued through teacher training will vary greatly, with the debts of some NQTs approaching those of medical graduates. PGCEs tend to cost around £9000 in tuition fees plus living costs, with some

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students supporting their studies by living with family. Whereas, teachers following school-based routes in England may benefit from starting salaries of around £17,000 right from the beginning of their careers^{82,83}. Certain recent NQTs (from 2013 onwards) may also be eligible to apply for student loan reimbursements if they are working within specific local authority areas and teach listed subjects⁸⁴.

2.3.6 'Hot action' workplaces

At night, the house officer [F1] is given a little paging device affectionately called a bleep and responsibility for every patient in the hospital. [] The night-time SHO^a and registrar will be down in A&E reviewing and admitting patients while you're up on the wards, sailing the ship alone. A ship that's enormous, and on fire, and that no one has really taught you to sail. [] You're beeped by ward after ward, nurse after nurse, with emergency after emergency - it never stops all night long. Your senior colleagues are in A&E seeing patients with a specific problem, like pneumonia or a broken leg. Your patients are having similar emergencies but they're hospital inpatients, meaning they already had something significantly wrong with them in the first place. [] You're a one-man, mobile, essentially untrained A&E department..reviewing an endless stream of worryingly sick patients who, twelve hours earlier, had an entire team of doctors caring for them [] It's sink or swim, and you have to learn to swim because otherwise a ton of patients sink with you..

This is going to hurt: Secret diaries of a junior doctor, Peter Kay

^aSenior house officer (SHO) is an historic term used in previous medical hierarchies to refer to second year trainees (now F2s) or those subsequently undertaking two years of core training (CT1s and CT2s)

2.3 A comparison of the teaching and medical professions

All is calm – until the children arrive and a wall of noise ensues. Thirty teenagers crash into the room chatting, shouting, screaming, and playing.. The school day begins at 8.30am and lasts until 3pm, taking in three 100-minute lessons, a break, and a 40-minute lunch. For [the teacher], the day is longer. She arrives at school at 7.45am (eating her breakfast in the staff room) and usually works until 5pm, marking and preparing for the day ahead. [] The holidays, often seen as the main perk of the job, are not as much of a bonus as they seem: “I get 13 weeks but, like most teachers, I spend a lot of that time planning for the next term.” She also says it is easier to work when she is ill, rather than take a day off sick. “You have to get up and prepare a lesson to email over, then you worry about whether the kids have misbehaved and if your classroom has been disrupted. It’s easier just to turn up.” “Some children are dealing with a lot of problems at home, so we have to be understanding.. Sometimes, we’re the only discipline they get and often we’re the only ones that listen.” She also explains how well-behaved children can have bad days and vice versa. “You don’t know what’s going on in their lives. Some might have had a terrible morning at home and bring it to school. Some might have had a fight or a falling out with friends” [] When she asks a question, the same children put their hands up regularly, so she has to coax others out of their shell.. The barrage of questions do not end when the lessons finish. [She] cannot walk down any corridor.. without fielding inquiries. “Miss, what time is the assembly this afternoon?” “Miss, how old are you?” “Miss, do we have science class this afternoon?” [] Even while eating lunch in the staff room the teachers seem to be constantly on the move, popping in and out, chatting to children, breaking up the odd argument.

A working life: The secondary school teacher, The Guardian

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The first extract comes from the book 'This is going to hurt: Secret diaries of a junior doctor by Peter Kay'⁸⁵. Although written somewhat to amuse (and sometimes shock) the reader, these stories were drawn from Kay's own real-life experiences of becoming a junior doctor and clearly convey the chaotic, busy, complexity of the medical workplace, and the very real feelings of fear and responsibility that accompany dealing with such an environment for the first time. The second extract is taken from 'A working life: The secondary school teacher'⁸⁶, an observation of a secondary school classroom by a reporter. This illustrates some of the many aspects of the secondary school teacher role, which the teacher (Samantha Munro) grapples with daily - from managing challenging behaviour and caring for students' emotional wellbeing, to high workloads, long days and being constantly 'on the go'. Eraut has described some professional workplaces as 'hot action' environments. These are complex, busy settings which need to be constantly monitored for relevant change, with rapid responses made to these shifting circumstances. In order to manage this, professionals quickly develop what might be termed tacit knowledge or intuition, and once routine responses to particular conditions have become established, it is may be difficult for them to verbalise exact reasons for their decisions. However, they must also be able to deconstruct and relearn such habitual responses if they are to remain flexible and gain new knowledge³. This tension is described as being analogous to riding a bicycle in busy traffic, with the need to simultaneously balance and steer whilst also responding immediately to sudden events (automatic operations), but in moments of calm being able to consider one's route or future events (deliberative, reflective thought). In teaching, Eraut has noted 'many things are happening at once and situations change very fast.. with only a small number of opportunities to stop and think'⁸⁷. Health-care environments have similarly been acknowledged as complex and dynamic environments⁸⁸, and characterised as 'hectic, demanding [and] time-constrained'⁸⁹. Therefore, we can see that in both medicine and teaching, the term 'hot action' is

an appropriate description.

2.3.7 Impact of working conditions

The daily schedules and unsociable hours that medicine requires can mean that the profession ‘takes over’, leaving junior doctors with little time for personal lives outside of work⁴². Being required to move geographical areas for placements, and having rota patterns which change frequently, can make it very difficult to plan or commit to social events. At the time these data were collected, between 2012 and 2013, trainees were required to work a maximum average of 56 hours per week, with a maximum of 91 hours during any seven day period, and shift lengths of up to 14 hours^{90,91}. The introduction of the European working time directive (EWTD) in 2010 was intended to improve conditions across all working environments and reduce fatigue. However, doctors of all grades have reported that the hours they actually complete often differ widely from those scheduled, with some feeling pressure to lie when recording their hours formally⁹¹. Additionally, through the EWTD reducing the total number of hours allowable, many doctors feel these new rotas are less sociable than previously, and the pressure to complete the same workload within smaller time-frames can amplify feelings of stress⁴³.

Teachers also suffer increasingly from issues of overwork and time management. UK teachers in particular work longer hours on average than teachers elsewhere in Europe⁹². The majority of state-funded schools in England must adhere to the school teachers’ pay and conditions document (STPCD), which restricts teachers’ formal contact time (that is, time spent teaching in classrooms) to 1,265 hours per year over 195 days of term-time. These limits however, do not apply to non-teaching days such as training days, or to staff who undertake leadership roles. Academy schools are also not required to abide by these rules,

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but can set their own terms and conditions⁹³, a steadily more common circumstance as the number of schools undergoing academisation has been rising rapidly since 2007^{94,95}. Given that much of the work that teachers undertake lies outside of the classroom, their actual working hours can be difficult to quantify exactly. However, a diary study in 2013 showed that secondary school teachers worked almost 56 hours per week on average, of which approximately 20 hours were timetabled teaching, 9 were planning, preparation and assessment (PPA), and 11 were completed outside of the school day (before and after school, and at weekends)⁹⁶. By 2016, a new teacher workload survey showed that teacher's average hours were around 62 hours per week⁹⁷ and these figures of 60 hours plus have recently been corroborated by other data sources⁹⁸. Many teachers feel that their workloads are excessive and unsustainable^{99,17}, with tasks such as 'prep', marking, admin and the running of extra-curricular activities frequently encroaching upon evenings and weekends, so impacting upon their home lives^{100,101}. Teachers do not suffer the additional burdens of having constantly changing rotas and working night-shifts, but many do report working late into the night in order to finish tasks¹⁰². In 2018, a Teacher Workload Advisory Group was set up by the Department of Education, to consider how schools might reduce teachers' workloads, by removing unnecessary paperwork tasks such as 'excessive' data collection and evidence for Ofsted inspections¹⁰³.

2.3.8 Time spent at one location or in one team

Foundation year one trainee doctors (F1s) rotate placements and workplaces every 4 months, with these locations frequently being so far apart as to require moving home. A recent report by NHS Health England has acknowledged the impact this has upon trainee doctors' lives and those of their families, stating that 'HEE are [planning] to review the frequency of training rotations with a view to minimising unnecessary movement between placements'²⁸. New working hour

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regulations has also meant shorter shifts. This change was aimed at reducing fatigue, but has also meant the breaking up of team structures which were previously the norm, frequently referred to as 'the firm'¹⁰⁴. In the past, trainee doctors would work with a regular team, made up of one leading consultant and a number of other junior doctors at various stages of training¹⁰⁵. They would be scheduled to work together on the same rotas, meaning they would see the same familiar faces each day (or night) giving them the opportunity to get to know those staff very well. The new organisational contexts of medicine mean that trainees can be working with different people on every shift, and some feel that this fragmentation can negatively impact upon the relational aspect of team working and continuity of care, with consequences for patient care, job satisfaction and clinical learning^{43,106,107}.

In comparison, trainee teachers usually complete their NQT year working at a single school. This may represent a benefit or a drawback depending on the environment in which they find themselves. Spending prolonged time in one workplace will ideally allow teachers to build up experience and build social networks within that school and their particular subject department/s. However, if they feel isolated and unable to approach others for help when required, they may be faced with the alternatives of either staying put and feeling unhappy, applying to work at a different school, or leaving the profession altogether¹⁰⁸.

There are questions here then regarding the benefits of being enculturated into one workplace, which if socially supportive could be highly beneficial, but if not a 'good fit', might feel stagnant or oppressive. For instance, trainee doctors may benefit from the changes in placement: by having the opportunity to observe how different teams operate, developing an ability to adapt to different social micro-cultures¹⁰⁹, and from the knowledge that if one placement isn't enjoyable it

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is only a matter of time before they move on. However, as previously noted, the need to re-orientate to new surroundings may be an additional source of work stress.

2.3.9 Interprofessional collaboration

Differences exist in the extent to which each of these professions are collaborative on a day-to-day basis, with doctors usually working within interprofessional teams, whereas teachers may work alone in classrooms for a large proportion of their day. The foundation year programme for junior doctors takes place within a multidisciplinary environment, which may consist variously of nurses, other junior doctors, consultants, GPs, physiotherapists, occupational therapists, radiographers, social workers, and so on¹¹⁰. This means that working in a team is a key skill for F1s¹⁰⁴. Ideally, working in close collaboration with others could be an advantage for newly-qualified doctors, in terms of accessing support or information, and making them feel less isolated. In reality, we know that other factors can influence this, and one focus of this research is to identify such factors.

Teachers also work within wider teams, which may include other teachers, head teachers, teaching assistants, special educational needs coordinators (SENCOs) and so on, and another aim of this research has been to identify who all of these people are and the different types of support they provide. However, when working in classrooms, teachers may have limited access to these social networks, only having opportunities to access the experience and advice of others at specific times such as breaks, meetings, training courses, mentoring episodes, preparation time, online forums, and so on. Teachers who support students with special educational needs (SEN) or vulnerable students may additionally benefit from attending interdisciplinary meetings with speech therapists, educational psychologists, social workers, doctors, school nurses,

the police, etc. However, cuts to various services has meant that some of these opportunities are diminishing, such as the reduction in number of school visits by educational psychologists¹⁵.

2.3.10 Public perceptions and status

Researchers have long made claims that public attitudes towards teachers are in decline¹¹¹, and a 1995 report¹¹² found that over time perceptions of teachers in Britain had changed from seeing them as autonomous and independent professionals (during the 1960s) to that of a role defined by the 'dominant powers of the political world'. However, more recent work has found that public opinion of both doctors and teachers is high when compared to that of other professions, and this has varied little between 1999 and 2004¹¹³. Both professions are seen as trustworthy¹¹⁴, respected¹¹⁵, and highly skilled¹¹¹, with teachers coming just below doctors and nurses in such ratings. Teaching is also seen as a role of which most families would be proud¹¹⁶. However, teachers themselves feel that their professional status is low in the eyes of the public, the government and the media. Such perceptions may come about when teachers feel that the work they do is under-appreciated, due to punitive inspection regimes, heavy workloads and lack of support^{117,118}. Feelings of deprofessionalisation in teaching may also arise from an expansion in the use of non-qualified staff (such as HTLAs - higher level teaching assistants) as part of 'workforce remodelling'¹¹⁹, and increased government intervention into teaching practice, with 'audit' cultures leading to perceptions that teachers cannot be trusted to exercise professional judgement¹¹⁹. There are those who feel that the status of doctors is also diminishing worldwide, due to factors such as increasing professionalisation of other health-care roles such as nursing¹²⁰. Some also feel that the media paint a negative picture of the medical profession¹²¹, although this may reflect a tendency towards negative incidents more generally, rather than resulting from intentional campaigns¹²². Overall then,

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if surveys can be believed, it appears that both teachers and doctors are held in relatively high regard by the public, but for various reasons these professionals view their own status in a much more negative light.

2.3.11 Identification with professional roles

It might be hypothesised that the degree of social and emotional investment in professional roles and the extent to which individuals *identify* with that professional role, incorporating it into their personal identities, is likely to relate to some of the factors described above¹²³. For instance, the age at which a career aspiration was chosen, time and money spent pursuing this ambition, the status which the role holds, the extent to which the job takes centre stage in personal lives, and the original motivations for pursuing that career may all be influential. As has been described, doctors and teachers have similar motivations for choosing their fields, including idealistic conceptions of helping people and serving their communities, and a desire for careers which are intellectually challenging. However, new doctors have invested a particularly high degree of time and monetary commitment towards their career, which also often comes with a particular social status and family pride. The way in which doctors' lives can be dominated by the job may also mean that there is a blurring of the lines between the personal and the professional¹²⁴. Particular pressure may then be felt to continue with training once they have reached foundation stage, even in the face of personal or workplace-related difficulties and psychological distress. Similarly, we know that the professional identity of teachers becomes an important part of their personal identity over time. However, it could be suggested that they may identify less strongly with their employment role than doctors in terms of linking this to their personal identities, due to lower costs and time of training, the higher average age of student teachers, and working hours somewhat more compatible with personal lives (though undoubtedly still described by many as unsustainable). Depending on

the training routes chosen, there may be less monetary pressures working against them if teachers later decide to leave. However, to date, no research was found which specifically compared the extent of professional and personal identification of teachers and doctors with their roles.

2.3.12 Impact of errors

It is clear that trainee doctors face a great deal of responsibility, given that their actions, inaction or errors can have fatal or life-changing consequences for patients and lead to higher health-care costs^{125,126,127}. Awareness of such repercussions can add to the stress that doctors already feel, with experiences of mistakes or near-misses leading to lack of sleep, reduction in confidence, lower job satisfaction and anxiety over future errors¹²⁸, and this pressure being compounded in hospital cultures where threat of litigation is present¹²⁹. For teachers, the impact of their decisions is hopefully not life-threatening, but their professional behaviour in the classroom does have important consequences for student wellbeing and attainment^{21,130}, and the emotional investment that teachers have in performing these roles means that many novice teachers fear 'getting things wrong'. Such fears have likely increased in the light of an 'intensification' of the work role¹³¹ in what has been referred to as a 'new era of accountability'¹³², and teachers' pay increasingly being linked to students' exam results¹³³ despite a lack of evidence that performance-related pay (PRP) improves quality of teaching¹³⁴. Another common source of anxiety for new teachers is that of dealing with pupil behaviour and classroom management¹³⁵. Working in one school and department for a continuous period means that if teachers get off to 'a bad start' with one class or year-group, then perceptions of them as a teacher by students may persist over time and some effort may be required to recover. By contrast, whilst doctors may feel the need to impress peers and seniors with their performance, most patients come and go from the health-care system fairly quickly (at least in hospital settings), and the

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placement system means that F1 trainees may get the chance to make a new impression at their next department.

2.3.13 Emotional labour

Hochschild¹³⁶ was first to describe, during the 1980s, how 'emotional labour' was integral to many job roles. This observation was based on work with flight attendant and debt collector participants, but Hochschild theorised that many roles would require the performance of emotional labour, including diplomats, secretaries, doctors and nurses, psychiatrists, social workers, child-care providers, lawyers and so on. Three strands were identified as pertaining to emotional labour, which were that:

- (i) it entails direct contact (face-to-face or voice-to-voice) with the public,
- (ii) workers are required to change or manage the emotional states of other persons; for example, a psychiatrist will aim to induce feelings of calm and trust in their patients,
- (iii) the workers' emotional labour is monitored and controlled by employers; for instance, expectations regarding emotional expression being included within job descriptions and training programmes. Some examples of this might be a requirement to 'stay cheerful under pressure' or to remain consistently polite when faced with rude customers or clients, with deviation from these codes of conduct resulting in possible termination of employment.

Morris and Feldman²(p. 987) defined emotional labour as the 'effort, planning and control needed to express organisationally desired emotion' during their interactions with others at work. Such labour may require that one's true feelings be suppressed or disguised behind a professional mask, that inauthentic emotions be displayed, or that emotions experienced be modified through forms of

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'deep acting'¹³⁷. Several authors have questioned the idea that emotional labour necessarily produces negative consequences^{138,139}, as clearly some workers are attracted to particular job roles due to their focus upon service to others, which produces genuinely positive emotions and job satisfaction. However it has been suggested that where there are significant gaps between a worker's 'on-the-job self' and their natural self harmful effects can occur. These may include feelings of emotional dissonance¹⁴⁰, incongruity, and alienation from self¹³⁶, which add to job-related stress.

It has long been acknowledged that the teaching profession is an intrinsically emotional practice¹⁴¹. More recently, Day⁷⁰ has noted that a key part of the teaching role is to care for pupils' pastoral needs, and this emotional labour may involve elements such as dealing with difficult behaviour, showing empathy for students' suffering, and feeling anxiety over their wellbeing and achievement. Such emotional work may be intensified by teachers' tendencies to feel personally invested in the achievement and wellbeing of their students, and to hold strong values regarding what a good teacher should be¹⁴². Additional emotional distress may therefore also arise when outside pressures conflict with these internal beliefs and intentions. For example, steady reductions in resources and funding has left many teachers with less time to attend to the educational and emotional needs of pupils¹⁴³, whilst the role of teachers has been reported as expanding in many areas of the UK, as schools step into provide welfare services such as food banks¹⁴⁴. Similarly, demands for teachers to consistently raise educational attainment may be in opposition to their desire to make meaningful connections with students¹⁴⁵. These emotional strains of the job, if put against a background of insufficient support, can lead to what has been termed 'compassion fatigue', a type of emotional exhaustion which has been linked to physical and psychological symptoms, lower engagement with the role,

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and an increased incidence of teacher burnout^{146,147,148,149}.

In medicine, much work on emotional labour has centred on the nursing profession, with a keen recognition of the emotional component that this role entails^{150,151,152}. However, it has been noted that doctors have the same requirements made of them at work; to engage empathically with patients¹⁵³ and to manage powerful emotions¹⁵⁴, which may be concealed behind a professional demeanour when they deem it appropriate^{155,156}. That junior doctors feel strong emotions at work is unsurprising considering the situations they deal with daily; seeing people in pain, feeling loss, guilt or powerlessness when patients die, communicating with distressed relatives, and experiencing interprofessional conflict, all under conditions of fatigue¹⁵⁷ which may itself heighten emotional response¹⁵⁸. Whilst teachers who show caring attitudes towards students may be perceived as more capable¹⁵⁹, trainee doctors sometimes feel that their need to show empathy, whilst central to good patient care¹⁶⁰, is at odds with the goals of appearing competent, knowledgeable and authoritative¹⁶¹. However, doctors who manage their feelings by ‘manufacturing or suppressing emotions’ through the performance of either surface or deep acting, are at increased risk of burnout and depression¹⁶².

2.3.14 Recruitment and retention

There has been concern for some years regarding the retention of teachers in England¹² and our turnover rates are rather high compared to some other European nations¹⁶³. Recent DfE figures show that the number of full-time teachers leaving the profession each year has, from 2017, started to surpass the number of new trainees coming in^{164,165}, and the department has acknowledged that in concentrating efforts and funding on recruitment they may have failed to adequately address retention issues¹⁶⁶. This ‘leaky sieve’ effect has led to

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shortages, especially in subjects such as maths and physics which have become the target of government campaigns¹⁶⁷.

The reasons why teachers choose to leave the profession are complex but some factors cited as influential on their decision-making are high workloads, increased pressures of accountability and policy changes, difficulties with behaviour management, increasing paperwork and decreasing levels of administrative support, social isolation and a lack of support from leadership^{168,169,170,171}.

There are around 350,000 teachers in the state sector who are qualified but not currently teaching, and although some of these teachers do return to the profession after a short absence (around 20,000 per year), these staff are less likely to be employed full-time. Additionally, for secondary school teachers, the more time they take out from the profession the less likely they are to return¹⁷². Short-term retention rates are also lower for undergraduate training routes, for those from ethnic minorities, and trainees who study part-time or who are older, the latter perhaps being due to family commitments¹⁷³. In addition to the problem of those individuals who choose to leave teaching, funding cuts have also affected school staffing levels more generally, with a third of headteachers reporting that they had to make cuts to the number of teaching staff or the number of hours they are employed for. Furthermore, four out of five schools have cut the numbers of hours for staff employed as teaching assistants¹⁷⁴, meaning that teachers have less help in the classroom to support children with additional educational needs.

As well as problems with retention, there are issues around attracting enough trainee teachers in the first place. The Initial Teacher Training Census measures the recruitment of trainee teachers, including postgraduate trainees, and compares this against estimates of how many teachers will be required, as calculated by the Teacher Supply Model¹⁶⁵. Until 2012, teacher recruitment

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was exceeding predicted demand, but since then recruitment has consistently fallen short. In particular, the number of secondary school teachers entering training was 17% below the target set for 2017/18, a deficit of 3,300. The worst shortfalls were for STEM subjects such as maths, design and technology, and physics, with surpluses of teachers trained in biology, English and PE¹⁷⁵.

Overall, such teacher shortages, whether arising from recruitment issues or high attrition rates, can put more pressure on the school system as a whole, meaning higher workloads and stress for those teachers permanently employed, and schools having to spend more of their already pressured budgets on temporary agency staff. It has been argued that high turnovers in staff are also disruptive for students, as they may be taught by constantly changing staff, temporary teachers or ones not trained in the subject areas they are delivering, and the loss of teachers with long experience may also have an effect upon children's wellbeing and attainment^{176,21,177}. Furthermore, there is an important distinction to be made between those who are merely surviving within the school system but are disillusioned and demoralised, and those who continue to be motivated, actively engaged and effective teachers^{178,179,20}.

The National Health Service (NHS) employs 1.7 million people across the UK. This makes it the biggest employer in the UK but also the fifth largest employer globally. However, as in teaching, the NHS is facing staff shortages across the board. According to recent figures, there are 5.9% less staff in post than NHS organisations said they required for operation and budgeted for, making a shortfall of 50,000 altogether, and 2550 of these missing staff are junior doctors¹³. In a 2015 Spending Review statement¹⁸⁰, the Department of Health predicted that although the number of hospital and community staff would remain broadly stable in the future, leading up to 2021, the number of doctors required

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for a 24-7 model of care was likely to increase slightly. Given the length of training time to bring new doctors into the system, it is perhaps not pessimistic to suggest that this shortfall is unlikely to be met in the very near future. Current NHS funding cuts to local preventative health initiatives such as smoking cessation, sexual health or substance misuse may also have a further impact on health services as they increase the need for GP and hospital services down the line¹⁸¹.

Hospitals are experiencing difficulties with medical staffing in a number of locations in the UK, particularly those where living costs are high such as London¹⁸², and in certain specialities such as paediatrics¹⁸³. Shortages of medical staff leads to frequent unfilled gaps in rotas and this has been an area of concern for organisations such as The Royal College of Physicians, who feel it puts the safety of patients and training of junior doctors at risk²³. Filling staff gaps with medical locums however, adds significantly to NHS trusts' expenditure, despite recent efforts to reduce the costs incurred by using employment agencies^{184,185}. In addition, half of all junior doctors who complete their foundation years are choosing not to move into specialist training right away (down from almost three quarters previously, 71.6%), but instead are deciding to take jobs overseas, work in non-training posts or take a break from their careers altogether¹⁶. Nurses are also currently in high demand, and the numbers of healthcare staff available to work has been predicted to decrease if Brexit results in a halt to migration¹⁸⁶. A deficit of nurses and other healthcare staff would likely have a significant impact on the working lives and training of novice doctors at the foundation stage and beyond.

2.3.15 Stress and burnout

Related to issues of retention are the high levels of stress and burnout experienced by doctors and teachers. As discussed previously, both professions have

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to work under demanding conditions which involve emotional labour, long hours, and additional pressures upon workloads due to unfilled staff positions and insufficient resources, so it is unsurprising that they have to find ways to manage the stress generated by their jobs. Additionally, given difficulties in maintaining a healthy work-life balance, it may be difficult for these professionals to 'wind down' from their jobs in ways which would help ameliorate this stress. Finally, it has been noted that both doctors and teachers tend to be very conscientious and idealistic, holding themselves to high standards and therefore experiencing stress if they fail to meet those standards^{187,188}.

Prolonged stress over time can lead to a phenomenon known as burnout, commonly described as being a combination of three factors^{188,140}

- (i) profound emotional exhaustion (which may also manifest as physical fatigue),
- (ii) cynical attitudes towards client groups (e.g. students or the public), leading to feelings of coldness, depersonalisation and withdrawal,
- (iii) a lack of positive feelings about work, for example, feeling ineffective or lacking pleasure in accomplishments at work.

A recent systematic review showed a level of mental ill health amongst UK doctors as between 17 and 52%, as measured by the General Health Questionnaire¹⁴. Burnout scores also indicated high levels of emotional exhaustion, depersonalisation and feelings of low accomplishment¹⁴, and a GMC Survey in 2018 showed that trainees were no exception, with around a fifth of 'doctors in training' feeling burnt out 'to a high or very high degree'. This was linked by the report to high workloads within the context of unfilled gaps in rotas and insufficiently supportive working environments¹⁸⁹.

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Specific, recent statistics for teacher burnout are more difficult to source in the literature, and this in itself may highlight a problem, in that we know teachers are leaving the profession but the number who do so for reasons of exhaustion and burnout are not adequately captured by current measures. However, a recent online survey suggested that around 10% of current teachers were suffering from ongoing exhaustion and another 7% agreed with the statement that they 'feel completely burned out and wonder if they can go on with the job'¹⁹⁰. Additionally a report by the Education Support Partnership, a charitable body interested in teacher wellbeing, showed that the large majority of their respondents (74%) felt unable to 'switch off' after work, having subsequent effects upon their personal relationships, and a third (33%) of teachers reported having experienced a mental health issue within the last academic year¹⁹. A cross-sectional study of English secondary schools in particular, has suggested that self-reported symptoms of moderate to severe depression were over double what might be expected at a population level¹⁹¹. All in all, these high levels of reported mental ill health in education and medicine suggest that support for these professionals during the early years of their careers is critical.

2.3.16 Professional training and development

*Teaching (like medicine) requires application of knowledge, interpretation of evidence and its application to real-life situations, using critical thinking skills and previous experiences.*¹⁹² (p. 420)

It has long been noted that parallels exist between the training and development pathways of doctors and teachers, with professional competence being acquired through the synthesis of academic knowledge with practical experience gained in classrooms or clinical settings²⁶. In both teaching and medical training programmes, there has been a shift from formal accrual of knowledge to an

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increased emphasis on a 'practice first' approach, with the view that early exposure to authentic working environments leads to better readiness for professional roles^{193,194}. Building on this idea of commonalities between the professions, some ITT institutions have begun to translate and adapt the 'clinical model' of training so as to apply it to teacher education^{53,195}. Much like 'clinical placements' in medicine, teachers within this model attend placements at individual schools which are part of a learning group or community, and are supervised by university tutors who are themselves embedded in that community and responsible for overseeing all aspects of their mentorship. The rationale behind such moves is a perceived need to more closely integrate academic theory, research evidence and practice¹⁹⁶, and for teachers to develop similar 'clinical reasoning' skills as those required by novice doctors¹⁹⁷. An overview of these training pathways is illustrated in Figures 2.1 and 2.2, for comparison.

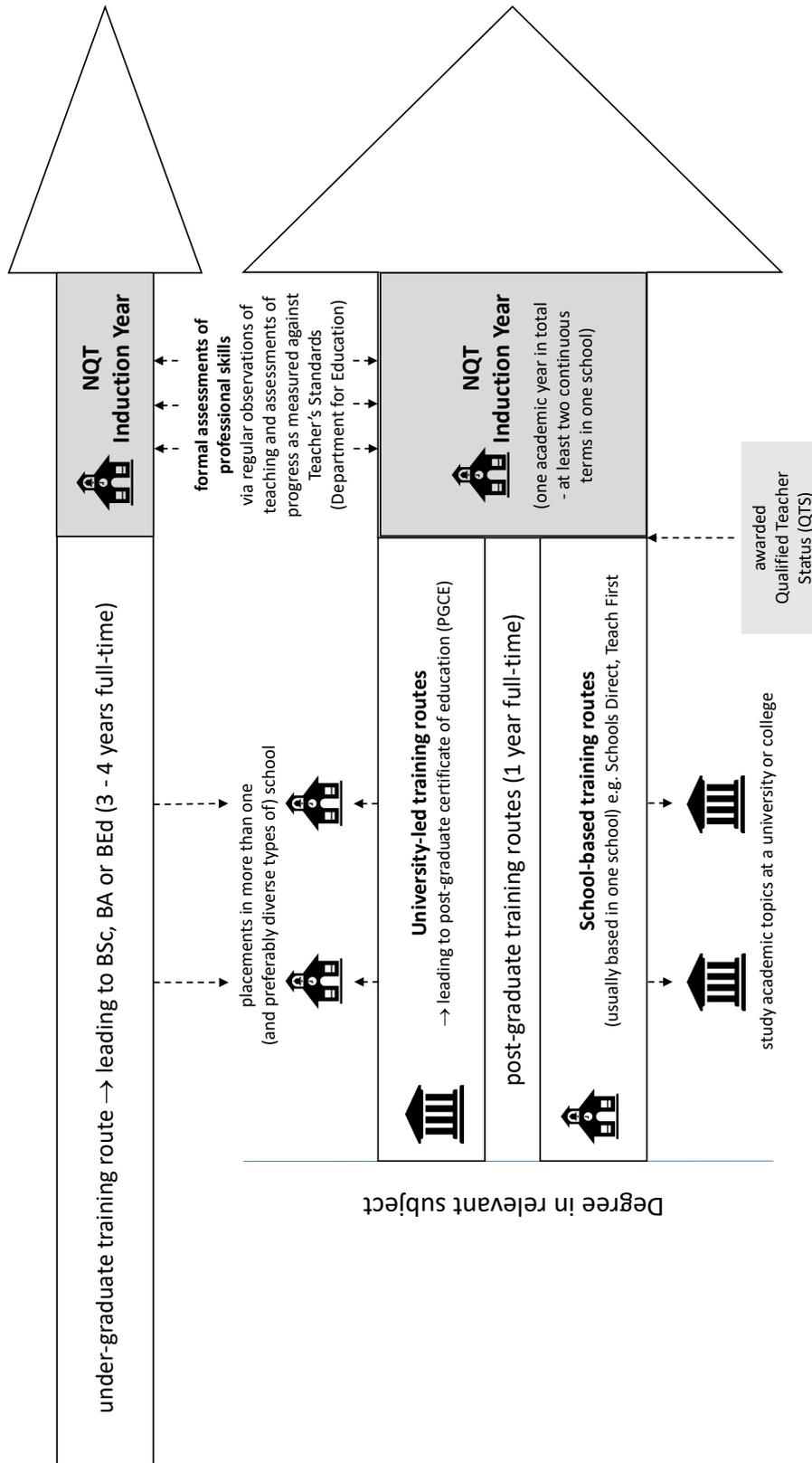


Figure 2.1: Training pathways for teaching

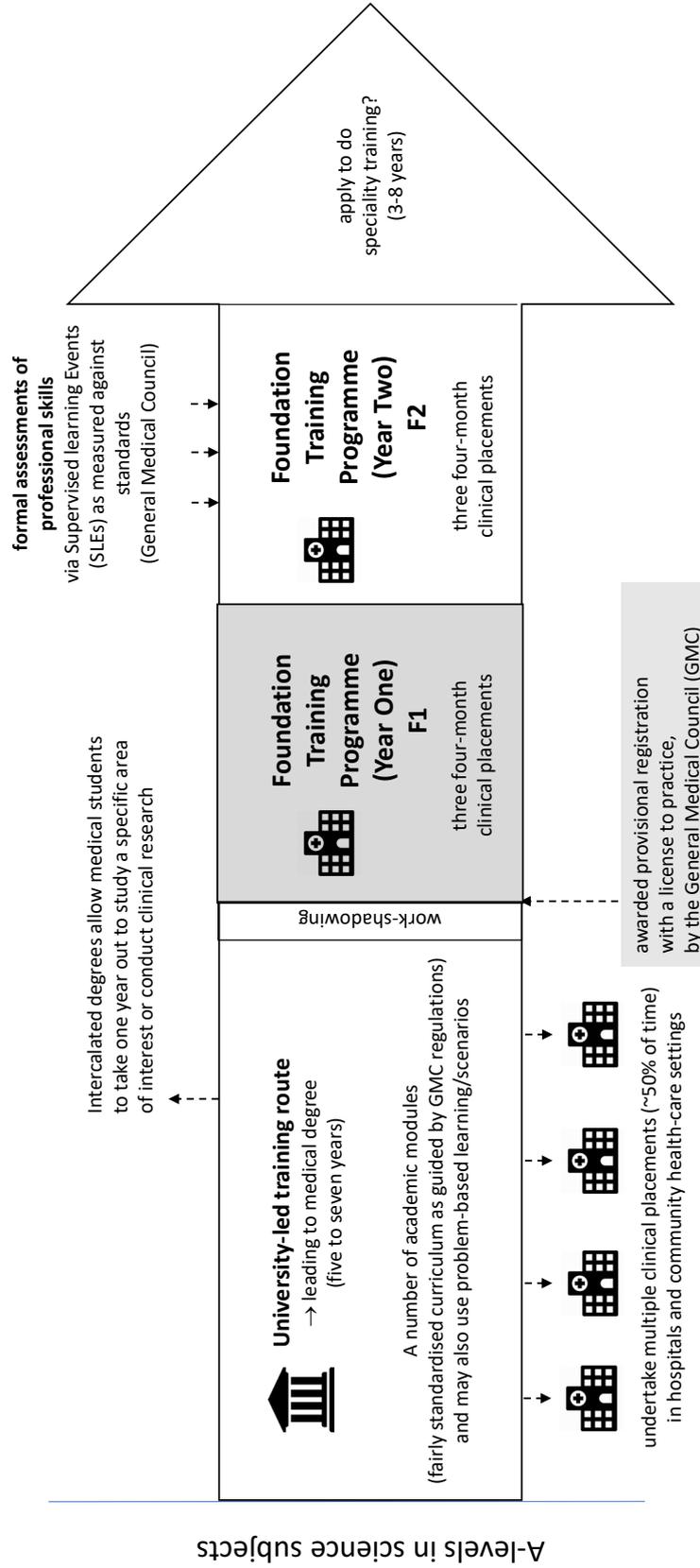


Figure 2.2: Training pathway for medicine

2.3.17 Why compare doctors and teachers?

In conclusion, although there are significant differences between the individual working environments experienced by NQTs and F1s, it can be seen that at a broader level there also exist many commonalities. For example, the 'hot action' nature of medical and teaching environments, and the difficult transitions which new professionals experience as they seek to translate knowledge into real-life practice whilst also familiarising themselves with complex settings. There is the emotional labour required by both of these public service roles, and perceptions that their work is not fully appreciated by the world at large. Teachers and doctors tend to enter the professions with idealistic and altruistic motivations, but may face similar hurdles regarding the impact of the working conditions on their personal lives, against a background of changing government policies. Both fields are facing similar difficulties regarding the recruitment of sufficient trainees and the retention of staff once they are trained, as well as supporting the mental health and wellbeing of those who stay.

Furthermore, although the choice could have been made to compare two professions within the same area of work (for example, junior doctors and newly-qualified nurses in health-care settings), this novel examination of the similarities and differences between two differing areas may help to provide new insights. A comparison of different contexts can assist with the uncovering and challenging of inherent assumptions, allowing a fresh perspective. This cross-professional comparison was also undertaken with a view to highlighting wider contextual factors in the seeking, provision and acceptance of interprofessional support in workplaces. Such findings may be useful for the development of theories of professional learning and support, and have implications for policy and education.

3 Literature review

3.1 Introduction

Workplace learning and support for new professionals is a topic which crosses a wide number of subject areas, disciplines and research methodologies. In order to contextualise this study, it has been necessary to take a broad look at past research and theories of learning in organisations and workplaces as a whole, as well as those relating to professional learning, interprofessional learning and education, and interprofessional or multidisciplinary teams. This research takes as its focus one of the key transitions in professional life, completing formal training and stepping into the world of work as a 'novice professional', and so a brief consideration of transitions will also be made. In this study, specific reference is made to the professions of medicine and teaching, although other professional comparisons could have been possible, and therefore both medical education and teaching education literature will be reviewed. Given the potential breadth of these themes, it is inevitable that some relevant material may be omitted. However, it is hoped that in this chapter some key issues and current debates will be addressed, the rationale for this particular study clarified, and its broad aims and purpose outlined.

This literature review will begin with a broad look at workplace learning as a whole, then focus in on the processes required to become a professional in two

differing contexts, that of medicine and teaching. Finally, reflecting on what gaps currently exist in the literature, which questions still remain to be answered, and the value of using cross-professional comparisons to address these.

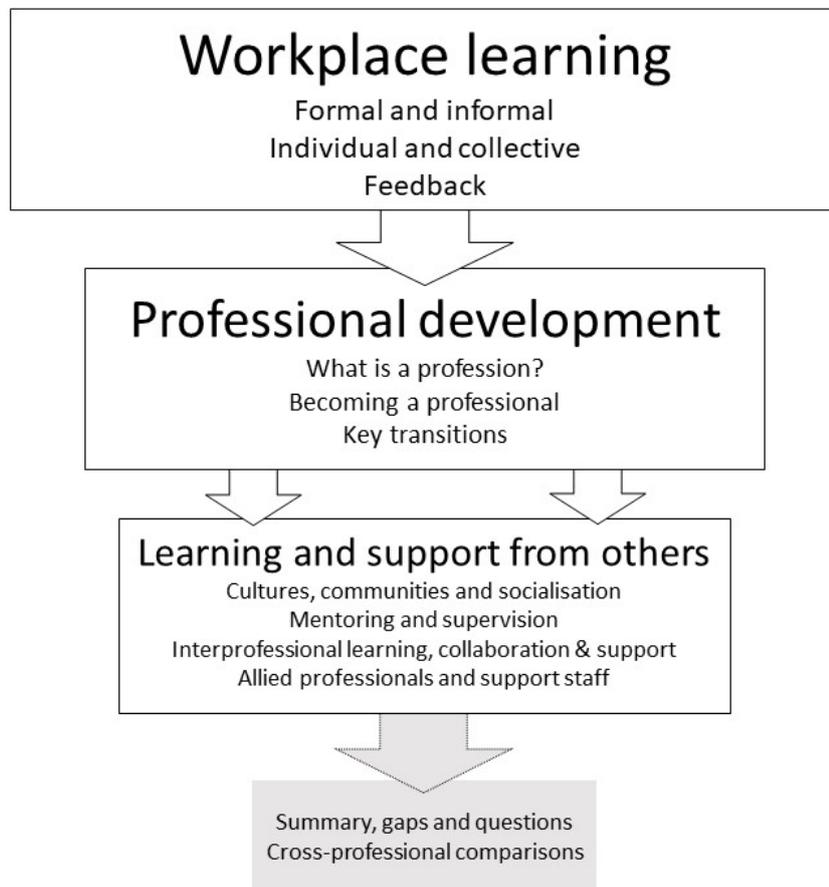


Figure 3.1: Map of literature review chapter

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A definitive explanation of workplace support was not located in the literature. Therefore, the definition of workplace support devised for use in this research, which encompassed the full range of activities felt to be of interest in study, was

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.

Early career professionals must balance the needs of service provision (the act of carrying out their job), against learning how to do that job to a professional standard^{198,49}, two strands which are inevitably intertwined. This suggests that a large component of the workplace support they require relates to their learning and professional development, and this has been confirmed by research^{199,200}. The following section will therefore examine differing conceptions of workplace learning, explore the differences between formal and informal types, and between individual and collective theories of learning. It will also take a brief look at what has been established regarding feedback and how that supports learning within workplace contexts. This will help form a broad basis for considering how learning, feedback and support might take place for newly qualified professionals in both medical and educational environments.

3.2 Workplace learning

3.2.1 What is workplace learning?

For a number of reasons, workplace learning is difficult to define. First, enquiries on this topic have arisen from a myriad of disciplines, including sociology, anthropology, adult education and life-long learning, higher education, professional education, human resource development, social psychology, vocational, organisational and managerial research^{201,202}. Second, these disciplines have adopted different theoretical stances and methodologies to investigate diverse areas of work, from manufacturing to service industries and professional training. Furthermore, these studies have been carried out from a variety of different stakeholder viewpoints, such as workers, managers, employers, and professional trainers. Over time, this has led to a ‘bewildering array’ of models, definitions and theories of workplace learning²⁰¹. The nature of learning is moreover likely to differ, depending on the skills and competencies required by each role, and the nature of the workplace in which that learning takes place. However, a broad look at workplace learning theories as a whole will first be taken, followed by a more specific focus on theories of professional development. For the purpose of this study, a simple definition of workplace learning is drawn upon, as described in the book ‘Improving Workplace Learning’⁹ and based upon a definition by the Workplace Learning Task Group^{a 11}.

Learning which derives its purpose from the context of employment..[which] goes beyond training, which is narrowly focused on the immediate task and restricted to business needs, but involves “learning in, through and for the workplace.”

One major distinction which has been made in the literature on workplace learning

^aThis group reported to the National Advisory Group on Continuing Education and Lifelong Learning, a Labour government taskforce set up to establish training links between universities and industry, and to encourage life-long learning¹⁰.

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is that between formal and informal workplace learning. This is highly relevant, as the main focus of data collection and analysis in this research is the informal learning and support which teachers and doctors receive.

3.2.2 Formal and informal workplace learning

Formal learning has, again, been defined variously. However, some main features of formal learning which generally appear to be agreed upon are that:

- (i) it involves structured, pre-planned learning activities or events^{3,203}, where learning is the 'prime and deliberate focus'²⁰⁴
- (ii) it is delivered by designated trainers or teachers³
- (iii) it takes place within traditional educational paradigms, where learning arises from didactic interactions between *instructor/s*, who are in control of the teaching process, and *learner/s*, who receives instruction^{205,203}
- (iv) it has explicit, pre-specified learning outcomes, which are described in a learning curriculum, and are aimed at achieving competence in particular areas of knowledge, awareness or skills^{205,203}
- (v) these outcomes are 'endorsed' by an employer, organisation or institution, who sets the learning programme. Credit or qualifications are commonly awarded to learners once these goals have been met.

Some researchers have also included within their definition of formal learning that it typically takes place outside of workplace settings e.g. in classrooms²⁰⁶. However, it is clear that formal learning also takes place within workplaces; for instance, supervised learning events are formal workplace learning events and assessments which foundation doctors must complete during their clinical placements, and teachers similarly undergo formal observations with accompanying feedback during their NQT year.

It has been noted that much learning taking place at work is informal²⁰⁷, with learning being a 'natural aspect' of working life²⁰⁸. Informal learning, or non-formal learning as it is sometimes referred to, has often been defined in terms of what formal learning is not²⁰⁹, i.e. unstructured, not delivered by a pre-designated trainer, and without pre-specified learning outcomes defined in a curriculum. In addition, informal learning has been described as:

- (i) responsive to the circumstances and opportunities of the moment²⁰⁶, occurring during 'critical moments of need'²⁰³ to solve problems as they arise in the workplace
- (ii) largely experiential²¹⁰ and embodied²⁰⁴
- (iii) situated within specific working environments and therefore leading to knowledge which is highly relevant to that context
- (iv) implicit. This means that what is learnt during activities is sometimes difficult to describe to others, and learning can happen unconsciously
- (v) often involving relationships with others, during activities carried out with or alongside other employees.

Informal learning is often characterised as spontaneous, unplanned, serendipitous or incidental to the main task at hand²⁴. Others have pointed out that it can also be purposeful, self-initiated and self-directed, driven by a desire to learn and individual curiosity, perhaps involving the seeking out of local experts²¹¹. Some activities which might be encompassed within informal learning are: giving or receiving instruction, demonstrations, role-modelling, problem-solving, hypothesis-testing, practising, being mentored, coached or supervised, job shadowing, team-working, and receiving feedback^{203,212,200}.

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Traditionally, there has been a greater emphasis upon formal learning. This approach began to be challenged during the 1970's²¹³, with claims that the situated nature of informal learning²¹⁴ made it more effective, and the subsequent knowledge gained was more readily transferable. Billett^{215,216} took issue with the labelling of workplace learning as 'informal' or non-formal, feeling that such terms undermined the importance of workplace learning for developing vocational competence. He argued that workplaces should be explicitly conceptualised as 'learning spaces', so that the 'characteristics and qualities' of these spaces might be examined, and the extent to which they supported learning assessed. In addition, the boundaries between what we think of as formal or informal learning are acknowledged to be somewhat 'fuzzy'.

It has therefore been suggested that a more constructive approach is to see formality and informality as more of a continuum than a dichotomy²⁰⁴, with various learning activities being more or less formal in relation to specific working contexts²⁰⁹. Eraut³ describes three main types of non-formal workplace learning based on the degree to which they are pre-planned, again recognising that in real-life environments these might lie on a continuum: ranging from *deliberative learning*, for which one has purposely planned and set aside time, through to *implicit learning* which is carried out without deliberate intent and may lead to unconscious acquisition of knowledge and skills. The middle-ground to these types is 'on-the-spot' or *reactive learning* which occurs in response to immediate events on recognition of a learning opportunity. This has also been referred to as 'emergent learning' as, although these are deliberate attempts to take advantage of current situations to increase knowledge and skills, unlike formal learning, the learning strategies are not pre-planned but emerge from current events and are adaptive in nature⁴. Recognising opportunities for learning is something which may be done by learners themselves, or by others in their environment.

Stern and Sommerlad also defined three types of workplace learning, but distinguished them by the physical location in which it takes place: 'off the job' (formal learning outside the workplace), 'on the job' (formal learning within the workplace), and 'continuous learning' where working and learning are 'inextricably mixed' (pg. 305)²¹⁷. They suggested that an ideal workplace would be structured so as to maximise this third type²⁰³. However, in modern times such boundaries of location are further blurred by the introduction of new working practices such as remote, flexible, mobile and home-working practices^{218,219,220}. Matthews²²¹ defined the workplace as much more than a physical location, encompassing also the 'shared meanings, ideas, behaviours and attitudes which determine the working environment and relationships.' For example, as noted in section 2.3, much of teachers' workloads consists of tasks completed at home. Some researchers have also called for better integration of formal and informal learning, so that connections can be made between theoretical and practical forms of knowledge²²².

Despite this lack of conceptual clarity regarding exactly what formal and informal learning are, it is clear that much of what is involved in learning to be a professional arises from informal or non-formal learning, which often involves the acquisition of implicit knowledge. For the purposes of these data analyses, the two terms were defined as follows:

Formal learning: Learning which is structured, with pre-specified activities and outcomes, delivered by a designated teacher/s and endorsed by the employer.

Informal learning: Learning which is unstructured and (relatively) unplanned, which relies upon an individual learner or teacher responding to the needs or opportunities of the moment.

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Another important distinction in our conceptions of workplace learning (although somewhat related to formal and informal learning) is the extent to which learning is seen as more of an individual or collective enterprise.

3.2.3 Individual versus collective theories of learning

Learning has historically been portrayed by some educational and psychological domains as a purely cognitive and individualistic endeavour²²³. Knowledge is a 'substance' which might be passed from one brain to another, as though being transferred between two containers²²⁴ and may thus also be accumulated over time²²⁵. This knowledge transfer is achieved through a process of converting privately known information into more explicit forms and communicating these by means of verbal utterances, physical demonstrations and so on^{226,227}. This conception of knowledge necessarily sees it as relatively static, being convertible into curricula and learning resources, measurable in formal assessments, and comparable between contexts²²⁵. Learners then think about and reflect upon what they have learnt in an individual manner²²⁸. Humanist views of learning have also centred around the capacities of individual learners, with a focus on autonomous, self-directed learning and an aim towards continual self-development^{229,230}.

Sociocultural theories, on the other hand, tend to view workplace learning as a collaborative and social activity. Workplace learning goes beyond achieving specific skills and competencies²²¹, or acquiring information²³¹. Groups of people working together reflect on what they are doing whilst carrying out joint activities, and this collaborative meaning-making through dialogue leads to the development of shared organisational understandings^{222,232} and stories²³³. Becoming an integral part of a workplace also involves 'socialisation' into the collective practices, procedures, values and norms of that organisation^{234,235,236},

but also more widely into professional communities of practice^{237,238} (see section 3.4.1). These communities are themselves embedded in social, cultural, political and economic contexts²⁰³. These processes of becoming embedded in organisational contexts is especially important in complex professional fields such as medicine and education. Longitudinal studies^{199,200} looking at the 'non-formal', work-based learning (WBL), of newly qualified nurses, accountants and engineers, showed that a great deal of 'learning from others' occurred. This was often *on-the-spot learning*, gained from working alongside or in teams with other staff, with opportunities to observe others and ask questions, to practise tasks and learn from their mistakes via feedback. This support received from others in the workplace was critical to maintaining morale and confidence when starting a new role, and also enhanced the professional learning of novices. Similarly, research has shown that although experience of day-to-day practice is a necessary component of learning for new doctors and teachers, the addition of coaching, supervision and feedback from others enhances this learning^{239,240}.

Many researchers also acknowledge that there are complex interactions between individuals and the sociocultural aspects of their working environments. Ideally, organisational understandings would be shared, so that collaborative action were possible; however, truly collective meaning-construction and information-sharing may be inhibited by hierarchical structures, micro-politics or negative emotional climates^{241,242,243}. Workers may be embedded within and influenced by smaller social structures, such as affiliations and cliques; for example, part-time workers versus full-time workers, or new workers versus 'old hands'²¹⁵. Individuals may also interpret collective meanings in their own way, shaped by their personal intentions and motivations²⁴⁴. Fenwick²⁴⁵ has referred to workplace learning as a *process* which is embedded within 'everyday practices, action, and conversation', which may involve the actions of both individuals and collectives. Billett notes

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similarly²¹⁵ that the 'norms and social practices' of a workplace may support, inhibit or regulate learning, participation, thinking, engagement and action, and therefore the extent to which the goals of the 'workplace curriculum' are achieved. However, there is a continual interaction between these social and organisational structures: what Billet refers to as 'affordances', and individual agency: the power to resist and negotiate participation due to personal goals, values and beliefs, and the active ways in which they construct their experiences based on past learning^{246,215,247}. In addition to these interactions between the collective and the individual, learning in the workplace may additionally be constrained by factors such as time²⁴⁸ and by the physical and spatial aspects of environments²⁴⁹.

My analysis of workplace learning by newly qualified professionals in both medical and school teaching contexts will seek to unpick these interactions between the individual and the social, and the various ways in which individuals respond to these environments. This will involve identifying social and organisational barriers to and facilitators of workplace learning, feedback and support, but also the ways in which individuals themselves seek to navigate these opportunities and constraints in agentic ways.

3.2.4 Feedback

A key part of all learning processes is feedback. In its broadest sense, we all receive feedback from our environments in that there are observable consequences which result from specific actions. In a workplace context for instance, a doctor might gain feedback on their actions through observation of practical consequences (e.g. whether blood was successfully extracted from a patient's arm), from the responses of patients, or from clinical outcomes²⁵⁰. A teacher may similarly observe students' immediate reactions to a new teaching strategy they are trialling in the classroom, or draw conclusions on its efficacy by tracking

subsequent test results. In this sense, feedback can be thought of as any 'information provided by an agent.. regarding aspects of one's performance or understanding'^{251(p. 81)}, which the learner may use to 'confirm, add to, overwrite, tune, or restructure information in memory'^{252(p. 5740)}. In this way, it is possible to compare one's own performance with the 'appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work'^{253(p. 6)}. However, in the context of this research, the particular type of feedback being focused on is that given to learners by more knowledgeable or experienced others as part of their workplace support.

Feedback from others may consist of verbal or written communications delivered whilst a task is being undertaken or once it is complete. The purposes of this type of feedback may include: informing learners whether actions were correct or incorrect, filling gaps in knowledge, cognitively re-framing situations to aid understanding, directing learners to new sources of knowledge, and increasing motivation and engagement^{251,254}. Ideally then, feedback should support learning in novices. However, it has been noted that if performed badly, feedback may actually harm performance or lower confidence²⁵⁵, and this may depend on factors such as the timing of feedback, how it is delivered by the instructor, and how it is perceived by the learner. Therefore, in both medical and educational literature it has been emphasised that feedback provided should also be effective and *constructive*.

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Features which have been identified as making feedback more constructive include that it should be:

- Specific and situational. Generalised statements such as 'You are doing well' are less useful than specific observations on what did or did not go well during an activity, and concrete suggestions as to how performance could be improved^{256,257}. It can also help if the goals of learning encounters are clearly pre-established beforehand, so that performance can be compared with intended outcomes²⁵⁸,
- Timely. Preferably feedback would be given immediately, but otherwise as soon after events occurring as is practical. This means that the information communicated can be related to features of the situation, which will be fresh in the learner's mind²⁵⁹,
- Credible. Comes from a source which the student respects and whom they deem 'credible'. This may include judgements regarding their expertise and knowledge²⁶⁰, but also perceptions of the teacher's authenticity and feelings towards the learner²⁶¹,
- Accurate. Feedback which does not convey true information, e.g. that the learner performed well when they can see they have not, will decrease their confidence in the credibility of feedback from that source²⁶²,
- Non-judgemental. Feedback which objectively presents information on features of the situation and consequences of the learner's actions, rather than conveying judgement of the learner themselves, are more likely to be accepted rather than reacted to defensively, modified or misunderstood^{263,264,265},
- Kind. Feedback which is delivered with warmth and kindness, and which focuses on positives as well as negatives, is also more likely to be accepted by the learner²⁶⁶. This may also include an awareness of other unintended audiences, as delivering criticisms publicly in front of peers or other staff may cause

embarrassment and lower confidence²⁶⁷,

- Relevant. Relevance may be enhanced if the person giving feedback knows the learner well²³⁹ and has directly observed their performance^{268,269},
- Understandable. Information should be delivered at an appropriate level, which may mean tailoring language and concepts used to suit novices²⁶²,
- Forward-looking. Specific suggestions for modifications to action in the future will help the learner to know how to improve their performance²⁷⁰,
- Ongoing. Frequent, repeated instances of feedback enhances effectiveness in changing behaviour²⁷¹.
- A two-way process. Ideally, feedback will be a conversational process, whereby learners may solicit feedback on aspects of performance they wish to know more about, the giver of feedback checks that it has been understood as intended, and self-evaluative reflection by the learner is encouraged^{253,270}.

In addition, feedback solicited by the learner themselves may be perceived as more useful²⁶⁹. More generally, workplaces which cultivate positive attitudes towards learning, in which the giving and seeking of feedback is seen as the norm, may also enhance feedback's effectiveness^{250,272}.

3.3 Newly qualified professionals

3.3.1 What is a profession?

In order to explore how newly qualified professionals learn to carry out their roles and the support they might require to do this, it is first necessary to consider what is meant by a profession, and which aspects of professions might differentiate them from other types of occupation. Professions have often been characterised as possessing a number of key features or ‘traits’²⁷³. A profession is therefore likely to:

- require specialist skills and knowledge, based upon a ‘widely recognised body of learning’²⁷⁴
- require a substantial period of academic study or professional training prior to qualification²⁷⁵
- require keeping this knowledge up to date via continuing professional development (CPD) activities²⁷⁶.
- be motivated by service²⁷⁷, with skills and knowledge exercised in the ‘interest[s] of others’²⁷⁴ based on a ‘contract’ between professions and the public²⁷⁸ (although this idealistic assumption of altruistic motives has been contested^{279,280})
- a degree of technical autonomy²⁸¹, and trust by the public²⁸², as the rationale for professional judgements may not be easily communicable to laymen²⁸³
- involve long-term commitment¹²³
- have its own occupational community^{284,285}, with professionals often required to gain membership of professional or regulatory bodies, who oversee professional standards, ensure quality of training, accredit qualification, support their members, and formulate codes of ethics^{286,287,280}

- require integrity²⁷⁷ and adherence to professional values and codes of ethics²⁸⁸; these codes and values being widely acknowledged, accepted and enforced by that professional community²⁷⁴
- be recognised by the public as such²⁸⁸

The original 'traditional' professions were those relating to basic social issues, such as law, medicine and the clergy²⁷³. Over time, the number of professions grew to include more modern occupations such as engineering, architecture, accountancy and dentistry^{289,290}. In addition, some roles which might previously have been seen as practical and supportive in nature, such as nursing, are now commonly viewed as 'new' professions. This change has occurred as nurses were required to gain higher levels of medical knowledge in affiliation with academic institutions²⁹¹, which accordingly confers greater status²⁹². Also, with the development of professional bodies such as the Royal College of Nursing (RCN), and practitioners being expected to display greater individual autonomy and responsibility²⁹³, particularly in new roles such as advanced nurse practitioner (ANP)²⁹⁴. However, the legitimacy of some professions such as nursing, social work and teaching has been questioned - with some arguing they should instead be viewed as semi-professions, despite clearly meeting many of the requirements above²⁹⁵. In the case of teaching, this may perhaps be due to its history of lower autonomy, lower social status and pay, and predominantly being seen as a female pursuit²⁹⁶.

Being a 'professional' is often given a wider meaning; implying one who has taken up an occupation full-time with a view to making a living, rather than pursuing it on an amateur basis; such as becoming a professional sports player for instance²⁹⁷. In this thesis, however, the word professional is used to denote a member of one of the professions, as described by the traits above.

3.3.2 Becoming a professional

A number of models and theories have been developed which attempt to illustrate the process that newly qualified professionals move through to become experts in their field. Just two examples of these are briefly described here; first, to illustrate the complexity involved in becoming a professional due to the breadth of skills, knowledge and attributes that need to be acquired, and secondly, because such models can help determine which aspects of this process necessitate support from others.

The Dreyfus brothers' model of skills acquisition (1986, as described in Eraut²⁹⁸) tracks the development of professional expertise as a gradual move from the novice's adherence to formal rules and guidelines, towards the competent application of routinised practice and habits, eventually leading to the expert's holistic appreciation of situations and pattern recognition, which they can use to solve problems and make decisions. At this final level, logical analysis and deliberate reflection only comes into play when novel situations are encountered, which cannot be solved through application of this tacit knowledge and expert 'intuition'. The Dreyfus model highlights some of the strengths and limitations of developing implicit knowledge and routinised behaviours²⁹⁹. On the one hand, experts can act quickly and decisively, saving time and reducing cognitive load. On the other, there is the danger that after many years practice professionals cease to be sufficiently reflective, relying instead upon habitual or intuitive responses. Furthermore, veteran practitioners may experience difficulties in communicating what they know to novices, and in explaining the rationale behind their decisions.

Box 3.1 Summary of Dreyfus model of skills acquisition (1986)²⁹⁸

Level 1 Novice

- Rigid adherence to taught rules or plans
- Little situational perception
- No discretionary judgement

Level 2 Advanced Beginner

- Guidelines for action based on attributes or aspects (aspects are global characteristics of situations recognisable only after some prior experience)
- Situational perceptions still limited
- All attributes and aspects are treated separately and given equal importance

Level 3 Competent

- Coping with crowdedness
- Now sees actions at least partially in terms of longer-term goals
- Conscious deliberate planning
- Standardised and routinised procedures

Level 4 Proficient

- Sees situations holistically rather than in terms of aspects
- See what is most important in a situation
- Perceives deviations from the normal pattern
- Decision-making less laboured
- Uses maxims for guidance, whose meaning varies according to the situation

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Level 5 Expert

- No longer relies on rules, guidelines or maxims
- Intuitive grasp of situations based on deep tacit understanding
- Analytic approaches used only in novel situation or when problems occur
- Vision of what is possible

Cheetham and Chivers' provisional model of professional competence (1998)³⁰⁰ distinguishes between different categories of competence which professionals must acquire, including knowledge, functional, behavioural and values-based competencies, as well as over-arching competencies such as communication skills, creativity, analysis, problem solving, and the ability to pursue self-development.

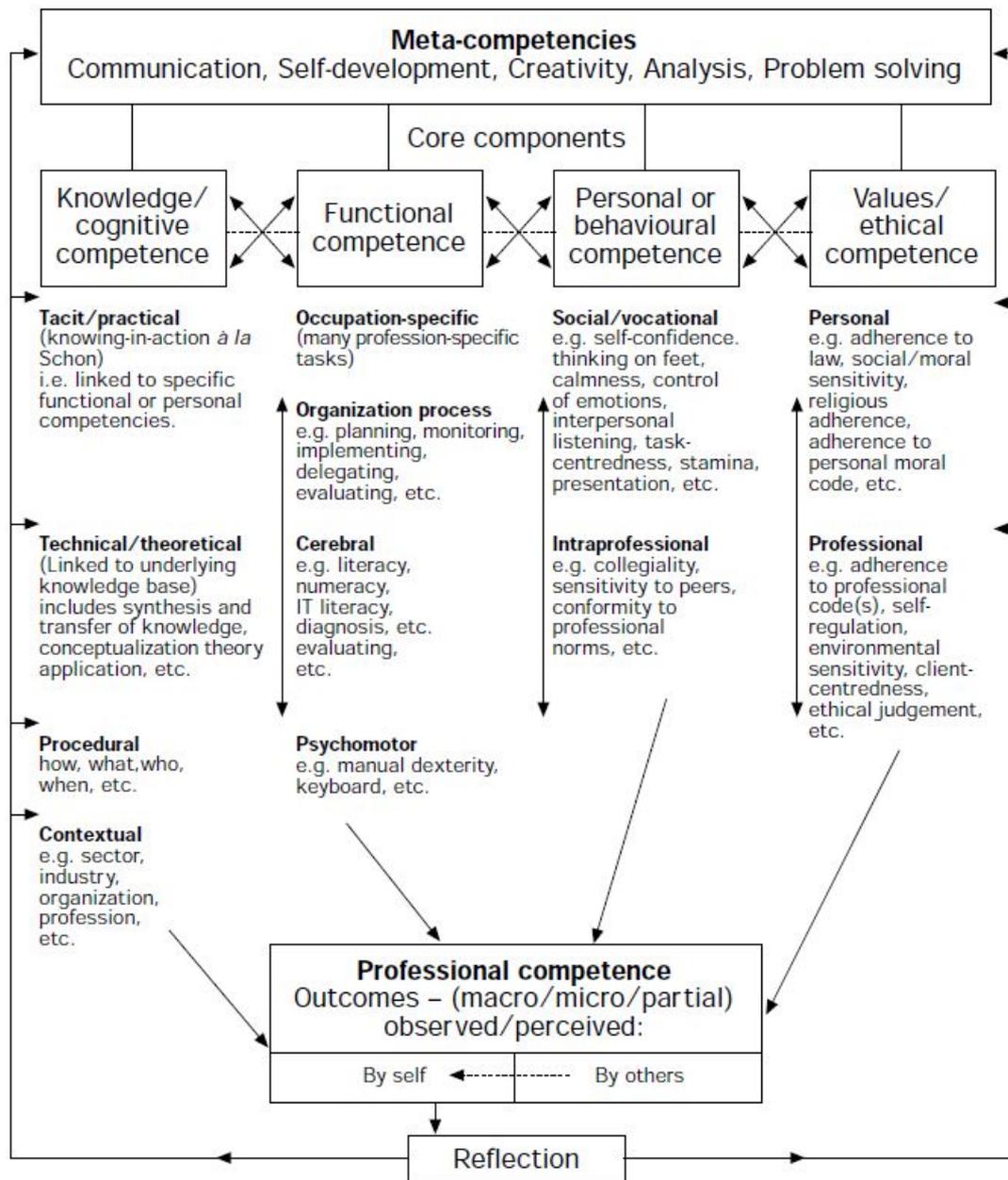


Figure 3.2: Cheetham and Chivers' provisional model of professional competence (1998)

If we look at the process of becoming a doctor or teacher, it can be seen that novices need to develop a wide array of professional skills simultaneously, which go far beyond the simple acquisition of a bank of medical or subject-specific knowledge. These skills may include understanding the roles of one's colleagues and how to interact with them effectively; developing the skills of communicating

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with students, patients, or professionals outside of the workplace; understanding the local rules, regulations and protocols of specific workplaces; being able to self-regulate emotions when stressful events occur; learning how to use specific pieces of equipment; solving complex problems on one's feet when quick decisions are required; and reflecting back on these situations when quiet moments allow. Relating this model to the research described here, it was borne in mind that newly qualified doctors and teachers might seek or access support with developing any of these skills described, as well as the day-to-day tasks and service provision needs of medicine and teaching.

Together, such models demonstrate the complexity of becoming a new professional, as novices need to acquire a deep knowledge base and a range of key technical and interpersonal skills. On entering the workplace they may face difficulties in translating what they have gained from previous formal training into practice, as at the outset they are unable to discriminate which features of a situation are most salient, or to see the 'big picture', both of which might inform professional judgement. This leads us to the topic of transitions.

3.3.3 Key transitions

This research study is concerned with the experiences of doctors and teachers in their first year after qualification, which represents a major professional transition. It is therefore helpful to examine what has been said concerning professional transitions, particularly in relation to medicine and teaching. The idea that transitions are *necessarily* problematic has been critiqued³⁰¹. However, it has been well-documented that supporting transitions across the 'gap' between education and practice is key to ensuring the wellbeing of individuals and managing impacts upon professional performance during these periods of change.

The word transition implies notions of movement from one physical setting to another, but also encompasses changes in state, role and identity, and the need to adapt to new practices, norms and relationships^{302,303}. Given that professional practice is characterised by an initial period of academic study or professional training prior to qualification (section 3.3.1), the move from education to working life is a key transition for most professionals. The degree to which this represents substantial change in terms of everyday working experiences depends on the extent to which previous training routes have been work-based (for instance, school-based teacher training, or apprenticeship models of learning in scientific fields) or involve work placements in real-life environments. In addition to this, such education-to-practice transitions tend to have the following features:

- (i) the need to translate theoretical knowledge and training into practical actions and decision-making; a move from the abstract and hypothetical to the messy, complex and concrete,
- (ii) a heightening of responsibility with regard to decisions made and actions taken, which may increase individual stress and have consequences for professional practice whilst professionals are adapting to this new level of challenge,
- (iii) a need to become familiarised with new physical environments, including navigation of the local geography, knowing where essential equipment is kept, etc.
- (iv) for all but perhaps a small number of professions, there is the need to establish new social relationships, within the context of complex organisational hierarchies, and to know 'who is who' in terms of who to approach for advice or job-related actions,
- (v) a need to become familiar with the roles and responsibilities required for the

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job, within a particular workplace context, which may differ in small ways from similar workplace contexts

- (vi) the gradual formation of a professional identity, as opposed to that of student or trainee, and a sense of being part of a community of practice (section 3.4.1).

Transitions in medical training

Postgraduate doctors face new challenges as they apply years of accumulated medical knowledge to real-life clinical problems. Foundation trainees are, for the first time, turned to by patients, nurses and other healthcare staff, for diagnoses, confident opinions and critical decisions regarding patient care, all under conditions of time pressure. F1s have reported finding this transition between medical school and clinical training stressful. This is due to the many aspects of change which they undergo, simultaneously experiencing a sudden increase in responsibility and autonomy, whilst also having to re-learn forgotten medical knowledge, master new clinical skills, deal with acutely ill or dying patients, develop effective communication with colleagues and patients, and acclimatise to clinical settings^{35,304,305,306}.

The ways in which these 'critically intensive learning periods'¹⁸ are managed has ramifications for patient safety. For instance, associations have been found between the arrival of junior doctors in hospitals and increased mortality rates³⁰⁷. It has been noted that much research on transitions focuses on how individual professionals can successfully navigate these periods of intense change, but 'social forces' and 'the larger collective' are also of great importance³⁰¹. In the case of postgraduate clinical trainees, it has been shown that appropriate support and supervision is key to reducing patient risk during this stage³⁰⁸. From 2012, in the UK, there was the introduction of mandatory shadowing programmes

of at least four days for all F1s, and induction programmes at their initial clinical placements, aimed at softening the transition between training and first medical roles³⁰⁹. Both types of initiative have been demonstrated to have positive effects upon trainee wellbeing, with longer induction and shadowing periods being correlated to reduced anxiety³¹⁰.

Also acknowledged in the literature, is the multiplicity of transitions which some junior doctors may face during their training journey. As described earlier (in section 2.3.8), foundation doctors experience a number of mini-transitions between clinical placements every four months, and local induction courses may help new doctors feel more confident in these new work settings³⁵. In addition to expected transitions such as changes in role, workplace and geographical location, there may be additional 'multidimensional' and unplanned transitions, from personal relationships to living arrangements, with the cumulative impact of adjusting to these exacerbating stress and intensifying trainees' need for support overall⁷⁹.

Closely linked to the concept of transitions, is that of 'preparedness to practice' and the extent to which educational pathways prepare new professionals for real working life^{311,312}. For instance, the amount of clinical experience gained during undergraduate training is inversely related to stress levels experienced during foundation training, suggesting that 'early exposure' to patients and real-life medical problems is helpful for reducing mental pressure^{304,313}. Other factors associated with preparedness include participation in multiprofessional teams^{304,314}, length and suitability of shadowing and inductions for clinical placements^{315,316}, and appropriate supervision of clinical tasks³⁹.

Transitions in teacher training

Traditionally, the main transition in teacher education was the one between initial teacher training, conducted primarily within universities and colleges, and practice within schools. This necessitates teacher trainees translating what they have learnt in terms of theory and applying that in their first NQT role³¹⁷, the so-called theory-practice gap³¹⁸. Given the steady growth of school-based training routes over the last thirty years³¹⁹, teachers may now experience different types of transition; for example, from their training school to their first working role as an NQT, or even between trainee to NQT within the same school. This, whilst also dealing with high workloads, and managing disruptive classroom behaviour on their own for the first time³²⁰, so it is perhaps unsurprising therefore, that the first five years present a particular risk for teachers in developing mental ill health¹⁹. One factor which influences preparedness of teachers is the quality of the ITE programme undertaken, whether that be undergraduate, postgraduate or school-based. Some of the factors identified by teachers internationally as contributing to successful pre-service training have been: the gaining of subject-related knowledge, making links between this content and teaching methods, as well as practical experience of teaching and opportunities for feedback³²¹. Other key factors are the quality of inductions and mentoring³²², which potentially ease teachers' transitions into practice. It has been argued that these should do more than simply orient teachers to new school settings, but might also encourage inquiry and reflection on the part of NQTs, therefore supporting their longer-term professional development^{323,257}. A further teacher transition is when they complete their statutory induction period (NQT year) and formal support systems such as the provision of mentoring may be removed, a transition described by some as 'too abrupt', leading to suggestions that the NQT period should perhaps extend to two years instead of one³²⁴.

3.4 Learning and support from others

3.4.1 Cultures, communities and socialisation

School cultures

School 'cultures' have been extensively discussed in relation to teacher development. Day³²⁵ described school cultures as

the ways in which values, beliefs, prejudices and behaviour are played out within the micro-political processes of school life (p. 78)

acknowledging that these cultures could exist at the level of classroom, department or school, all of which could impact upon new teachers' professional development.

Ramsey also included in their definition of organisational culture the 'ingrained expectations.. unwritten rules, roles, and rituals'^{326(p. 1)} and Psunder described school culture as being 'like a collection of recipes telling us how to understand events in the school environment and what is the most appropriate reaction to them'^{327(p. 86)}, therefore laying out everyday 'guidelines' for teachers to do their work. Some authors have also made subtle distinctions between school cultures and school 'climates'³²⁸, whereas others have used the words interchangeably^{327b}

Such local cultures within schools were recognised in work originating during the 1990's and early 2000s, which tracked the consequences of mandatory induction programmes for new teachers as introduced by the Teaching and Higher Education Act 1998³²⁹. Hargreaves identified three main types of school culture (described in Day, 1999³²⁵), those of separation, connection and integration.

^bIn this thesis, the words culture and climate are used to refer to the same concept, and reference is also made at times to microclimates, which is the idea that within larger school climates, local cultures may occur at say the level of departments.

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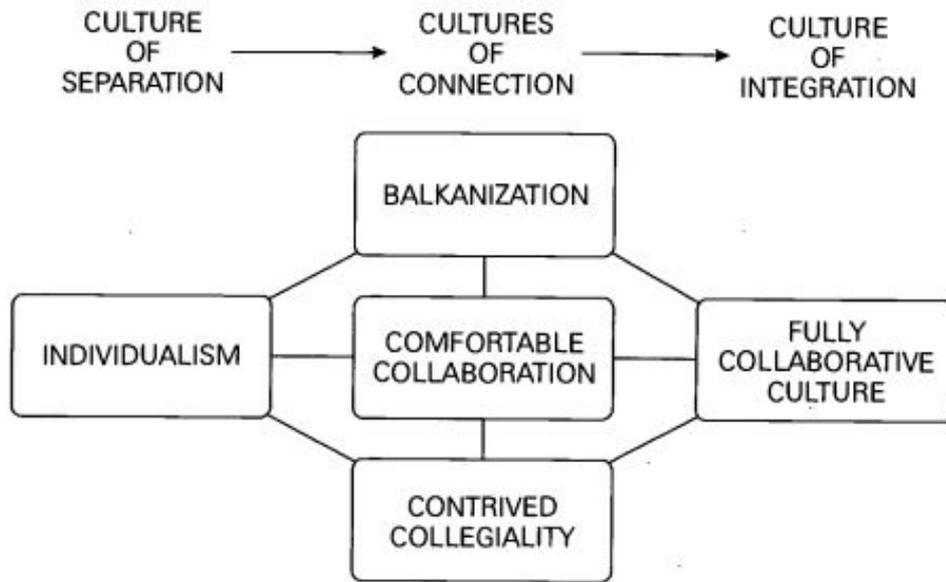


Figure 3.3: School cultures, adapted from Hargreaves(1992)³³⁰, found in Day(1999)³²⁵

Cultures of separation were individualistic and tended to limit professional development due to a lack of exchange of ideas and information between teachers. Connection could be expressed in three different forms.

- The first was that of 'balkanization', which although a form of collaboration at group level, could cause separation and competition between these groups. He identified this as commonly occurring within secondary schools, as teachers may identify with and be loyal to departments rather than the school as a whole. This could lead to inefficiencies due to duplication of efforts³³¹, and limit professional development activities and modes of thought (such as sociocultural norms) to those available within the group³²⁵.
- The next type of collaboration he referred to as 'comfortable collaboration', where cooperation occurred at the short-term practical level, in terms of, curriculum planning, for instance, or the sharing of tips, knowledge and advice. These activities may help to 'sustain camaraderie', but discussions would not extend to critical reflection or inquiry which might challenge the status quo.
- Finally, connection could occur in the form of 'contrived collegiality'³³⁰. As implied by this term, Hargreaves took a somewhat negative view of what he saw as bureaucracy implemented as 'a matter of compulsion'.

Truly collaborative cultures, as compared to these three types of connection, would foster genuine positive working relationships, leading to spontaneous and voluntary forms of support which went beyond the formal, with teachers exercising their own discretion to pursue activities which supported professional development. Also encompassed would be a degree of 'giving up' complete independence of thought and action, to create an interdependent community of practice.

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Building upon and simplifying these theories, through a study of primary and secondary school teachers, Williams and colleagues³³² found evidence of teacher cultures which ranged upon a continuum, from individualistic to spontaneously collaborative. Again, at one end of the continuum they located individualistic cultures, in which new teachers were expected to manage largely on their own, and create their own resources and planning, with a failure of others to 'check in' on them regularly to see how they were doing, or to have discussions beyond that required to fulfil immediate objectives. This type of culture was described as unlikely to meet the support needs of NQTs and even if they were to 'survive' their first year, these teachers were likely to seek an employment role in another school.

In the middle was what they termed structural collaboration (equivalent to Hargreaves' contrived collegiality); mandatory procedures such as formal inductions, the allocation of named mentors, regular observations of NQTs with accompanying feedback, and formal meetings to discuss progress. Unlike Hargreaves, these researchers could see the positive value of these externally imposed structures, which ensured a minimum level of contact time compared to previous experiences of new teachers where support was often largely absent after the first few weeks. In addition, they felt that both individual or balkanized cultures might be seen as steps along the road towards deeper, more 'culturally embedded' forms of collaboration.

Lastly, they talked about how in some schools, these spontaneously collaborative cultures arose. These were highly supportive environments, which went beyond and operated somewhat independently of the structural collaboration which had been put in place. They were characterised by spontaneous, informal discussions about teaching, where teachers felt safe to ask 'stupid questions', and collaborative activities which supported professional development, such

as co-teaching or planning. Such environments also tended to occur in those schools where the whole school was seen as approachable, from the 'lady on reception' to the 'canteen staff', and everyone went 'out of their way' to involve new teachers and develop real bonds of friendship. Distinctions have also been made between schools which are dynamic or 'moving', where teachers continually learn from one another and teachers outside the school, and those where school culture is static ('stuck')³³³, suggesting that movement of teachers within and between schools may be important in order to prevent stagnation.

More recent research has reiterated the importance of school culture to workplace learning. Environments which provide the freedom to collaboratively 'tinker', play and experiment as well as transfer knowledge, have been argued as key to teachers' learning, and these interactions appear to both arise from strong professional relationships and help cement them³³⁴. Collaborative cultures may also help to facilitate emotional support and reduce teacher isolation³³⁵. School cultures have been described as relatively stable, and therefore, whilst change is deemed possible, attempts at top-down measures may meet resistance³²⁷. This can be due to strong existing norms regarding 'how things are done'¹⁰⁹, or competing pressures of time and resources³³⁵. It is also possible that formal systems of cooperation may inhibit authentic forms of collaboration if overly proscribed³³⁴. Moreover, modern cultures of performativity and accountability, in which both schools and teachers are subject to continual monitoring and evaluation, can inhibit possibilities for creativity^{336,337} and risk-taking³³⁸. This may particularly be the case if new teachers receive the unspoken message that they need to be 'outstanding' right from the start³²⁴. However, there is also evidence that head teachers and senior leadership teams have much capacity to shape positive cultures within their schools. For instance in schools where leaders encourage open debate about norms and practices without fear of

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repercussions, allow sufficient time for teachers to work together, and undertake shared decision-making - collaboration and collegiality is enhanced^{339,340}. In addition, it has been argued that when leaders themselves model the behaviour they wish to see, whether that be admitting to and learning from mistakes, or mentoring and supporting junior members of the team, this is more effective than 'instructional' methods of leadership in changing school cultures³⁴¹.

Medical culture and ward cultures

In the medical literature the term 'medical culture' is often used to denote the culture of the profession as a whole, as opposed to localised cultures within particular hospitals or wards. In particular, much research has discussed 'toxic' medical cultures, where perfectionism is encouraged and where stigma is attached to showing psychological distress or taking sick leave³⁴². Also reported have been high rates of bullying and mistreatment of junior doctors across the medical profession, including in the UK^{343,344}. This may encompass sexist or racist discrimination, verbal and physical abuse and exclusion^{345,346}. Such high rates may arise from the hierarchical and competitive nature of medicine³⁴⁷, and a legacy of historical teaching methods where the use of fear and humiliation was normalised³⁴⁸. Added to what is already a stressful occupation, such experiences can further contribute to poor health and wellbeing, and reduced performance³⁴⁸. Medicine has also been noted to be very hierarchical, with reinforcement of hierarchies occurring through daily interactions between professionals such as doctors and nurses, which may inhibit effective interprofessional communication³⁴⁹.

Knowledge communities and communities of practice

Related concepts to that of workplace cultures are those of communities of practice and knowledge communities. Wenger²³⁷ pointed out that people learn how to do their jobs, not just through formal, defined social structures such

as teams or workplace-sanctioned training courses, but also via more informal social systems which he termed communities of practice. These communities may exist within, or cut across, departments and hierarchies, and can extend outside of the workplace also, being made up of any people from whom the worker can 'learn the intricacies of [the] job'. Through participating in this group however, they also go beyond mere acquisition of technical skills, being able to 'explore the meaning of [their] work, construct an image of the [organisation]', and develop their professional identity^{237(p. 1)}. Wenger's definition a community of practice includes the features that it must be a joint enterprise, with mutual engagement between its members, and a shared repertoire of vocabulary, tools, norms, stories, experiences, routines and knowledge, which has been developed collectively over time³⁵⁰. Such knowledge may encompass local information of how everyday practices occur in reality, as opposed to how they may be hypothesised to occur based on formal training, policies and procedures. Communities of practice were differentiated from social 'networks' in general, as having an identity of their own based upon the particular shared activity. The strengths of such communities are their ability to 'store' knowledge within living members which can be transmitted to initiates of the group, and reconstructed collaboratively to address particular problems. Organisations themselves may be aware or unaware of these communities to a variable extent, therefore able to make positive use of them (such as drawing upon on-the-ground knowledge and expertise) or possibly be undermined by hidden impacts (such as insular groups engaging in resource hoarding)²³⁷.

The idea of a knowledge community is related but has been distinguished from communities of practice as being a social group formed around a shared knowledge base (having originated from educational literature) rather than a particular shared practice (arising from the study of business organisations)³⁵⁰. This

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knowledge consists of 'personal practical knowledge'; shared narratives, including recollections and reconstructions of past events; and intentions to act in the future³⁵¹. These stories are told to others, reflected upon collaboratively, and used to help solve current practical problems³⁵⁰.

In addition, it has been noted that technology has the power to transform the ways in which such networks are formed, with informal online communities providing professionals with the opportunity to connect with those outside of their organisations from across the globe, exposing them to new ideas and practices, and giving them access to advice, information, emotional support, and a sense of camaraderie³⁵².

Socialisation

Participation in these professional communities forms part of the socialisation process for professionals, as they gradually adopt the professional norms of that community and develop a professional identity. This identity and socialisation process may be influenced by the individual's pre-existing notions of what it is to be a particular professional, dependent on their unique life histories, notions transmitted during pre-service training, and finally, the workplace itself and associated social groupings^{353,354}. This transmission of information via informal social routes, which exist outside of the formal intentions of the organisation have sometimes been referred to as the 'hidden curriculum'³⁵⁵. This socialisation process would ideally consist of learning from more knowledgeable experts and internalising good professional values³⁵⁶. However, professionals can also be subject to negative socialisation, by picking up 'bad habits' from those seen as having more expertise³⁵⁷, or failing to express personal values and ethics where these come into conflict with the views and behaviours of others^{358,359}. There is also the danger that unequal power relations between senior colleagues and newcomers can lead

novices to be encultured into their professional communities in ways which are rigid and discourage reflection, leading to stagnation and a lack of innovation³⁶⁰.

3.4.2 Mentoring and supervision

Much of the educational literature looking at support for NQTs has focused on the importance of relationships between allocated mentors and beginning teachers. Mentoring is generally understood as a one-to-one relationship between a more experienced expert and the novice, which has the potential to smooth transitions into practice, by inducting them into local workplace environments, and providing ongoing support. This can help to reduce isolation, emotional exhaustion, and intentions to leave^{361,362,363}. Ideally, joint activities undertaken with mentors, which provide a good balance between challenge and support, and incorporate reflective discussions and constructive feedback, will also support new teachers' professional development and feelings of competence^{364,192,361,365}. However, given differentials in status between new teachers and those who are providing guidance, if carried out poorly mentoring has the potential to lower confidence and cause self-doubt³⁵⁹. Factors shown to positively influence the success of mentoring roles include the perceived similarity of mentor and mentee (from the perspective of both parties), the duration and quality of the relationship³⁶⁶, including features of mutual respect, shared values and clear communication³⁶⁷. Elements which can contribute towards difficult mentoring relationships, on the other hand, include a lack of experience or appropriate training on the part of the mentor, a lack of time to devote to the role, interpersonal conflict or feelings of competition^{266,368,367}. There is also evidence that 'matching' of mentors and mentees with regard to subject specialism, age and grade may increase effectiveness of this relationship^{368,322,365}. However, mentors are generally allocated by school leaders and may be chosen on the basis of seniority and years experience rather than qualities of personality or ability to relate to mentee experiences³⁶⁹.

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Spontaneous mentoring relationships may also be seen as more productive than formally allocated mentor-mentee partnerships, at least in the short term³⁶⁶. Informal contact time has also been deemed important, as facilitating support which is responsive to immediate needs and building genuine mentor-mentee relationships^{322,370}.

In medical postgraduate training, F1s are usually allocated both a **clinical supervisor** and an **educational supervisor**, although the two roles can sometimes overlap. As per teaching, foundation trainees report variability in the quality of their relationships and similar issues influencing their effectiveness. For instance, issues found to inhibit success have included conflicts between the supervisors' roles in terms of support and appraisal, personality clashes, poor communication, and a particular emphasis on time pressures due to the hectic nature of both senior and junior doctors' roles^{371,372}. Effective clinical and educational supervision can arise, however, when supervisors are empathic and engaged, facilitate joint problem-solving, directly observe trainees' clinical practice, and provide constructive feedback³⁷³. Clear distinctions have been made between supervisory and mentoring relationships in medicine however, given that supervisors are also ultimately responsible for ensuring patient safety³⁷⁴. It has been suggested that provision of mentoring for new doctors by staff *other* than those in supervisory roles would be beneficial, because the support provided could be unconnected to assessment and unhampered by differentials of power and status³⁷¹. Such programmes do exist in the UK but are currently fairly limited in number, and informal seeking of mentoring may be inhibited by perceptions in medical cultures that seeking support is a sign of struggling³⁷¹.

3.4.3 Interprofessional learning, collaboration and support

As previously discussed, obtaining support with workplace learning is a large component of the support early career professionals will require. Much of this will involve learning from others rather than on an individual basis, and will rely on collaboration with other professionals, especially those with higher levels of experience and familiarity with their roles.

Interprofessional learning involves an 'exchange of knowledge, understanding, attitudes, or skills', between professionals, who work alongside each other in shared environments³⁷⁵. IPE and IPL are terms often used interchangeably. However, Freeth³⁷⁶ (p. xv) defines interprofessional education (IPE) as when professions learn from each other 'to improve collaboration and the quality of care', implying explicit goals. Whereas, interprofessional learning (IPL) may arise from specific learning goals, but can also occur spontaneously or 'serendipitously' within workplace or educational contexts³⁷⁶.

Some of the many benefits claimed for IPL within professions such as health-care include: improved communication and trust between professionals, better understanding of roles, breaking down stereotypes and social barriers between professional 'tribes', improved team problem-solving, reduction of workplace stress and higher job satisfaction, and more integrated, holistic ways of working^{377,378,110,379,380,381,382}. In clinical practice, there is evidence to suggest that IPE may improve patient safety and outcomes, reduce inpatient time, and reduce costs³⁷⁸. There is less research looking at how new teachers work with other professionals, but some evidence that much of teachers' learning during their NQT year is informal and relies on collaboration³⁸³.

There are many possible factors which might influence, encourage or inhibit

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interprofessional learning and collaboration in the workplace.

- (i) Unequal power relations, staff hierarchies and dominant organisational viewpoints may sometimes discourage the seeking or giving of support in workplaces. There are often power and status differences between professional groups, which may be due to factors such as gender, salary, education, and position in the staff hierarchy³⁸⁴. For example, in medicine, doctors are more likely to be male and nurses female³⁸⁵, which may affect the way that doctors perceive the kind of support they may legitimately receive from nurses³⁸⁶. In Mattick and colleagues' study looking at microbial prescribing, foundation year doctors sometimes reported finding it difficult to approach others for support, due to fears of criticism and being undermined, or feeling 'separate' from senior staff³⁸⁷, suggesting that differences in power may be an important factor. Similarly, in the classroom, teachers may find it difficult to seek or accept support from teaching assistants, even more experienced ones, due to disparities in the perceived social status of the two professions (based on education, salary and level of responsibility) and the unequal power these positions have in the classroom³⁸⁸.
- (ii) The ways in which doctors and teachers view their own professional identities and roles, and those of other professionals, may have implications for which other staff they approach for support and when. These identities, and the roles that are believed to accompany them, may in part develop during training³⁸⁹. However, they may also draw upon socially constructed stereotypes, personal experiences, and the opportunities they have had for contact with other professional groups^{390,391,392}. Additionally, senior staff members, whether medical consultants or a school department heads, will be influenced by ideas regarding their own personal roles and responsibilities, and may or may not see it as part of their role to provide support, coaching and advice for new members of staff^{393,369}.

- (iii) Team identities and social cohesiveness may assist collaboration and communication within professional teams, but inhibit cooperation between teams. Specific language and jargon may further cement teams bonds but alienate those from other groups, so contributing to professional tribes. Emphasising shared goals and the value which individuals contribute to multi-professional teams may help to reduce competition and encourage collaboration³⁹⁴.
- (iv) Organisational barriers, such as scheduling, staff availability and systems.
- (v) Individual differences between people, due to their own personal and cultural backgrounds, life history, differences in the level of education achieved, their personality and personal outlook upon life, may all affect how professionals seek support in the workplace.
- (vi) In addition, it has been suggested that the incorporation of IPE into training programmes, and explicit discussions of how interprofessional teams can work together, might enhance learning from other professionals in the workplace more informally^{395,396}.

A further type of support which may help professionals at work is that of **social and emotional support**. This has been shown in a number of professions to support good mental health, protect against the physical consequences of stress, and reduce intentions to leave^{397,7,8,398,399}. It is known that in healthcare teams, supporting the emotional wellbeing of doctors can help decrease burnout and attrition rates, and support good patient care⁴⁰⁰. Similarly, for teachers there is some evidence that socioemotional support from others in the workplace can be cathartic, supporting the release of emotions and therefore reduce the negative effects of the high emotional labour entailed by the role¹⁴⁸. Related to social support provided to individual professionals are ideas surrounding team morale and feelings of belonging, which could perhaps could be characterised as the emotional wellbeing of

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the group, given that emotional contagion can occur, especially in high-stress situations⁴⁰¹. It has been argued that identification with one's team can increase the beneficial effects of co-worker support on job satisfaction⁴⁰². A good team 'morale' can help to mitigate the stressful effects produced by difficult working conditions for doctors, such as poorly designed shift patterns, fatigue and high workloads, so long as there is continuity in the composition of that team⁴². Feeling trusted by colleagues, accepted by school leaders and receiving emotional support from colleagues, may all support feelings of belonging and reduce teachers' intentions to leave the profession³⁶². These concepts link again to ideas around organisational cultures, and the extent to which they might be individualistic or collaborative^{3.4.1}.

3.4.4 Allied professionals and support staff

Relatively few studies have specifically explored the informal learning and support which occurs interprofessionally within medical workplace environments after graduation. However, those that have demonstrate positive benefits for newly graduated healthcare professionals. Most studies have focused upon the doctor-nurse relationship, with evidence that nurses help to smooth transitions into clinical practice for foundation doctors. Informal learning from seasoned nurses helps F1s to acquire clinical skills, understand their own and others' roles, and reduce errors^{386,314,403}. They may also set up equipment for juniors, draw attention to deterioration of patients, and provide emotional support, sometimes taking on a 'nurturing' role⁴⁰⁴. In turn, nurses learn from and get feedback from experienced doctors throughout their careers⁴⁰⁵, and working alongside others is particularly helpful for nurses who are newly-qualified, with opportunities for observation of practice, asking questions, and discussion all being instrumental to their learning¹⁹⁹. There is much potential also for collaboration with allied professions to improve learning about prescribing. This has been highlighted by pilot studies where junior doctors co-worked with pharmacists^{406,407,408} and

findings that first-year UK doctors gain support from pharmacists, microbiologists and nurses with prescribing decisions⁴⁰⁹. Novel trials of interprofessional placements, where undergraduate medical and social care students train together have also shown promise⁴¹⁰. Nevertheless, much more could be known regarding the range of supportive roles which other healthcare professionals play in the lives of postgraduate trainee doctors and whether greater potential exists for interprofessional workplace learning and support to take place.

We know that teachers gain informal support from other teachers during their first year³⁸³. Based on the workplace experiences of the research team, it was hypothesised in this research that some teachers may gain support from allied professionals outside of the school, such as educational psychologists, social workers, police officers, occupational therapists (OTs), and speech and language therapists. However, the literature examining such teacher support in the UK is sparse. As well as undertaking statutory assessments within schools, educational psychologists often work with SENCos, providing advice and suggesting strategies for working with individual children⁴¹¹. However, their visits to schools have been reduced over time due to funding cuts¹⁵. Working relationships between teachers and professionals such as speech therapists, occupational therapists and social workers have been examined, with possible barriers to collaboration identified as a lack of role understanding, insufficient levels of contact between professions, time constraints, and perceived differences in status^{412,413,414,415}.

In both medicine and teaching, there are also support staff who assist professionals with their work, sometimes referred to in the literature as para-professionals. For example, healthcare assistants (HCAs), also known as nursing assistants, nursing auxiliaries or clinical support workers, now undertake much of the

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everyday patient care which might once have been performed by nurses, such as washing and feeding patients, and monitoring vital signs^{416,417,418}. Additionally, in 2015, the role of nursing associates was introduced in the NHS, to sit somewhere between that of HCAs and registered nurses, although the first of these were not due to qualify until 2019 and therefore did not feature in these data⁴¹⁹. An increase in the number of HCAs, and the changing nature of these roles to include medical tasks, has been in response to shortages of nursing staff and the increasingly specialised nature of the registered nursing role itself⁴²⁰. Some HCAs are now also trained to a higher level⁴²¹, and it has been suggested that this 'role drift'⁴²² is an attempt to provide nursing care 'on the cheap'⁴¹⁸. Some research has shown positive attitudes by nurses towards the work undertaken by HCAs⁴²³. However HCAs themselves report that despite being asked to demonstrate greater medical knowledge and benefiting from greater patient contact time, they are undervalued by nurses and other staff, and may not be listened to when raising concerns about patients⁴¹⁸. Changes in roles may also lead to role confusion and tensions within this hierarchical system^{421,416}, with some nurses seeing the work of HCAs as a threat to their professional status^{424,425}. Interactions between foundation doctors and HCAs have been under-studied. However, some recent interventions have explored the supportive roles of HCAs from their own standpoints, with initial findings suggesting that increasing new doctors' understanding of the roles and value of care assistants may enhance their use as a source of support^{426,427}.

Similar tensions between teachers and support staff have been noted in education. Teaching assistants (TAs), also referred to variously as teacher aides, classroom assistants, learning support assistants, special needs assistants or non-teaching assistants^{388,428}, usually work within classrooms to support individual children who have been given statements of special educational need.

However, they may also work to support the class as a whole, be utilised by schools to work across multiple classrooms, lead small groups, or perform administrative tasks for the teacher⁴²⁹. As per HCAs, the role of teaching assistants has expanded over time, moving from that of general classroom 'helper' to directly supporting student behaviour and learning⁴³⁰. Furthermore, although TA numbers have reduced overall in recent years¹⁷⁴, some TAs are called upon to deliver teaching to whole classes during teacher absences or PPA time, especially those who have undergone further training to become higher level teaching assistants (HTLAs)⁴³¹. This reduces the time they might previously have had available to do tasks such as photocopying or creating class displays⁴³². Research exploring TAs own experiences of working with teachers has shown that some feel they work well as a team, whereas others perceive defensiveness by teachers over boundaries or that teachers lack understanding of their role³⁸⁸. The exact nature of support that TAs might provide specifically to newly-qualified teachers therefore warrants further exploration.

The school workforce has also widened over time to include a greater number of job roles which involve working more indirectly with students, such as those which encompass support with pupil welfare and pastoral care, behaviour, attendance, assessment, lunch-time supervision, site management, administration and technology, as well as subject-specific technician work⁴³³.

3.5 Summary and conclusions

3.5.1 Summary of literature, gaps and questions

In this literature review, we have considered the nature of workplace learning, whether that be formal or informal, individual or collective, and the value of feedback from others. The concept of a profession has been defined for the

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purposes of this study, some models explored which outline the process involved in becoming a professional, and a look at what the literature has to say about professional transitions. Finally, the topic of learning and support from others was explored. This included a review of workplace cultures, professional communities, and socialisation into those communities; the roles of mentors, allied professionals and support staff; and how interprofessional teams might collaborate, learn and work together.

We have seen that much work has been done on preparedness of medical trainees, their transitions into practice, and the effects of IPE and IPL in medical school. However, there has been much less research looking at postgraduate sources of workplace support for new doctors during their foundation training programmes, particularly that which is more informal. With regard to newly-qualified teachers, research has tended to focus on school cultures as a whole, as well as mentoring relationships, but not explored in depth the support of allied professionals and other staff for these novices. Therefore, an exploration of the range of support sources for these new professionals, the types of support provided, existing gaps in support and which factors influence support provision, will all add to the field of knowledge in professional learning and development. In addition, understanding how new professionals navigate their workplace environments to gain support from others may help support future novices to successfully traverse those same transitions.

3.5.2 Theoretical influences

In grappling with a new and wide-ranging topic area, it was necessary to read widely across a number of different fields, with are accompanied by different theoretical backgrounds. Some of these theories were more influential upon the data collection and analysis than others, and an overview of how these influences

changed and developed throughout the research journey is provided in section 4.1 of the methodology. A main overarching theoretical influence upon the data analysis and model development was that of structure and agency^{434,435}; which aided description and understanding of the complex interplay between the material, organisational and sociocultural factors which can inhibit or facilitate support, and the responses of individuals to those factors. Such conditions are not static, however, but change over time; with potential for agents to change their environments or themselves be changed by their environments. F1s and NQTs may therefore act agentially to find ways to overcome barriers to support or find new sources of support, or may alternatively find it difficult to enact agency in the light of unsupportive environments.

3.5.3 Cross-professional comparisons

It is argued here that cross-professional comparisons can add value to studies of the workplace. Past cross-professional analyses of professions have variously examined:

- Occupational stress levels, coping strategies and burnout amongst police, doctors, dentists and teachers^{436,25,437,438,439}
- Professional socialisation of teachers and social workers⁴¹⁵
- Feedback effectiveness in medicine, music and teacher training²⁵⁰
- Theory-practice gaps in nursing, teaching and social work⁴⁴⁰
- Knowledge production by doctors and teachers⁴⁴¹
- Professional training routes and professional development of teachers, doctors, nurses, firefighters, police, lawyers, accountants and architects^{195,53,26,196,442}
- Workplace learning of newly qualified chartered accountants, engineers, teachers, nurses and midwives^{199,299,200,443}

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- The strengths and weaknesses of mentoring programmes in medicine, business and education⁴⁴⁴

One of the benefits of carrying out such comparative studies is that the commonalities of professions allows specific aspects of both (e.g. stress or acquisition of knowledge) to be examined in more depth with a view to uncovering underlying features or common causes^{25,26}. To the author's knowledge, no study has specifically compared the support given to doctors and teachers in their first year of practice, meaning this is a novel research design. Given the similarities of these two professions (section 2.3.1), a cross-professional comparison may help to uncover some of specific issues which affect workplace support for these new professionals during their first year, as well as discerning broader issues affecting support for other professionals in similar 'hot action' environments.

This project could lead to tangible recommendations for policy and practice, developed in collaboration with the end users of the research. For example, if certain types of interprofessional support were found to confer positive benefits for learning, decision-making, stress levels, health-care or educational outcomes, then it may be beneficial to formalise and empirically test the outcomes of such support. Additionally, understanding the learning experiences of other novice doctors and teachers, and which strategies are beneficial or detrimental to their developing practice, may benefit those in training, and this knowledge could be incorporated into educational curricula. Situating the research within an international perspective, it can be seen that there are significant overlaps between the on-the-job training contexts of teaching in many countries for both doctors and teachers. However, there will be limitations in the extent to which findings might be applied to differing contexts.

4 Methodology

4.1 Introduction

This chapter discusses the specific methods employed in this research in more detail, including: data collection methods, thematic data analysis, considerations of ‘trustworthiness’ and ethical conduct, how each stage of research was conducted, and how these stages fit coherently together.

The methodological design outlined was used to explore the following key research questions^a:

RQ1: Who supports F1s and NQTs in the workplace during their first year?

RQ2: What types of workplace support are provided to F1s and NQTs?

RQ3: Which factors influence (help or hinder) workplace support for F1s and NQTs?

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

RQ5: What similarities and differences were found between these findings for F1s and NQTs?

^asee section 1.3 for a full list, including sub-questions

4.2 Research paradigm

This section describes the underlying research paradigm which informed this study, including discussions of ontology, epistemology, theoretical influences, and reflections on the possible consequences of these for my research design and methodological decision-making.

4.2.1 Ontology

To choose the best approach for gaining knowledge on a particular topic, we must first understand the nature of the phenomenon being studied and our assumptions about 'what it is like'. For research investigating the material world and its properties, a positivist, realist outlook might be suitable, and such an outlook would likely inform the use of quantitative methods such as standardised, repeatable experiments with carefully controlled variables. Although the knowledge produced would necessarily be mediated by the methods and instruments used to create it, limits posed by human senses and intellect, and the linguistic tools we use to process knowledge and give it form, it is not impossible to conceive that a complete factual understanding of the physical universe *could* exist in an ideal world. The nature of social reality, however, is somewhat different.

When trying to make sense of human behaviours and experiences within the social world, we can establish that particular events occurred or certain words were uttered, through methods such observations, videos or interviews. However, these same events and utterances will inevitably be understood, given meaning, interpreted and experienced by differing observers in a multitude of subjective ways. Together in daily life, we draw upon broad shared meanings and interpretations, discourses and rhetoric, which allow us to communicate information and ideas to others. However, there will never be absolute consen-

sus and therefore, the nature of 'social reality' is not something we can gain knowledge of in absolute objective terms. However, we can try to achieve a better understanding of that social world; for instance, by asking people to share personal experiences and events, and then looking for patterns in their responses to infer explanations and meaning.

This study explores early-career experiences of informal learning and support in the workplace. Therefore, the reality being investigated is predominantly social rather than material, although material aspects such as physical spaces may also be influential. The nature of support, what constitutes 'being a professional' or professional learning, are all concepts which have been co-constructed with others, and may be subject to modification and re-interpretation over time. The nature of various professions has also changed over time, and an example of this is how the concept of professionalism has been extended to include new areas of employment such as nursing⁴⁴⁵. Therefore, a broadly interpretivist stance was utilised during this research, which acknowledges the multiple ways that individuals may experience their working environments, and how these experiences can be influenced by interactions with others.

4.2.2 Epistemology

As stated, the aim of this inquiry was to explore the experiences of new teachers and doctors in their working environments. This was done via narrative data collection methods and thematic analysis, and a more detailed description of these methods with a justification of choices made can be found in the sections which follow. However, brief discussion is made here, of why this broad approach was chosen, and the implications of this for the knowledge produced. This includes reflections on the role of the researcher, power relations in research, and the broad theoretical stance.

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Ways of obtaining data

In quantitative research, efforts are made to tightly control all possible variables so that one can see how manipulating one or more factors will affect pre-specified outcomes, and experimental psychology has highlighted some interesting aspects of human behaviour using social experiments which attempt to reduce human interactions to their simplest forms⁴⁴⁶. However, it is argued here that the best way to understand complex social environments such workplaces is to gather rich, comprehensive data, capturing all of the nuances and peculiarities of that specific social world. The idea that one could control all variables in a workplace situation is doubtful, as small changes can have unpredictable effects on human behaviour, emotions and thought. Such control would also be at odds with the aims of this research, to understand real life working environments as they currently exist. In general, qualitative research is not undertaken with a view to finding evidence for or against particular hypotheses, but rather seeks to gain a deeper understanding of a system, organisation, place, or set of social interactions. Repeating themes and patterns are identified within the data which illuminate the topic of interest, and the theories and models used to explain these patterns are generally understood to be provisional, subjective, and socially embedded.

The data generated in this research was produced using narrative data collection methods. These methods provide individuals with an opportunity to tell personal stories about their life experiences. These are inevitably framed by their own subjective understandings, feelings and attitudes, which in turn relate to unique life histories. There is no single answer to the question of what the experience of being a new doctor, or a new teacher 'is like', for all persons. In addition, the stories which people tell about particular events may change over time, as they integrate their experiences into wider autobiographical narratives,

and draw upon shared, socially-constructed understandings of these experiences 'in general'. The knowledge produced, therefore, has the caveat that it has been created under particular social and cultural conditions, at a specific point in history. Consequently, there are limits to the extent to which findings might be generalised to other contexts, places and times.

However, if enough narratives about a particular topic are generated, it is possible to observe commonalities between individual stories of experience, identify patterns and themes within them, and compare these with previous research findings. In this way, an overall picture of the topic of interest unfolds, a co-construction between researcher and participants, which tells us more than the sum of its parts. Each personal story also undoubtedly varies in some important ways from those told by others about similar events, and these *disparities* between stories can also be categorised during analysis. Possible explanatory threads for those dissimilarities can then be explored; for instance, individual differences in personality or cultural background, or between surrounding organisational and social systems. We recognise, therefore, that a striving towards definitive conclusions and 'truths' in social research, especially those which use 'stories as data'⁴⁴⁷, may not only be an unobtainable goal but also an undesirable one. This is because an exploration of *differences*, between people, situations and circumstances, and the reasons these occur, may be as valuable as an understanding of the similarities.

The role of the researcher

The idea that researchers are impartial, objective and at a distance from the objects they observe has been noted as problematic even within the 'hard' sciences. Clearly, the ability to be self-reflective is an essential skill for all researchers, as this encourages an examination of underlying assumptions and motives,

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organisational goals or personally-favoured theories which might influence our perceptions and interpretation of the data. However, in qualitative social science research, it is arguably even more critical that researchers acknowledge their own subjective stance. The data collected and findings generated are inevitably contingent upon the aims of the persons producing them and the individual decisions they make, from methodological tools employed to interpretations drawn during analysis. These choices rest upon the assumptions one makes about the world and what can be known, and underlying motives for the work.

Qualitative research is also an essentially social enterprise, with each data collection episode being unique, producing output which relies on particular dynamics between researcher and participant/s, and the quality and style of their interactions. Given these considerations, the next section aims to explicitly acknowledge my own personal history and past experiences, and how these may have influenced the research.

Personal reflection

My first academic studies at graduate level were in philosophy, which taught me there is always a different perspective from which to view anything. Later, I studied psychology, during which we were introduced to two alternative conceptions of human behaviour. First, we studied the cognitive and biological psychological sciences, disciplines which typically focused on the individual and saw a person's cognitions, thoughts and feelings as internal phenomena somewhat separate from the social environments they inhabit. Following this, was a module in critical social psychology, which questioned the assumed objectivity of psychological sciences and the individual nature of human beings. After further studies in cognitive and clinical psychology, I moved into the field of education. This is

an area which has historically been grounded in sociological ideas, which see learning as a predominantly collective and constructive enterprise. Therefore, throughout my research I have found myself weighing up and balancing the various contributions of both individualist and sociocultural theories of human thought, behaviour and learning.

During these studies, I worked for a number of public organisations - schools, a further education college, charities providing support to families and the public, and an elderly care home. These experiences afforded many opportunities to observe how individual behaviours were shaped by the organisations and institutions in which people worked, and the extent to which those individuals (including myself) might be able to change those structures, or not. I noted how systems and social contexts influenced the ways in which knowledge and learning were implemented in practice. That social relationships were often paramount to the processes of learning. That participation in the workplace frequently required observance of 'invisible' social rules, which may be enacted rather than explicitly stated. And that hierarchies of power could sometimes assist or be a barrier to organisational change.

Given these backgrounds, and having moved into the area of professional learning, I have found myself asking dual questions throughout this research: What is the role of the social structure, and what is the role of the individual within it? How does any given working environment constrain, enable or otherwise influence the new professionals coming into it and their ability to obtain support from others? And how does each individual perceive, navigate, change, or adapt themselves to these environments? As with the education of children, there is additionally the question of what 'hidden curriculum' may be presented to the adult learner, in our case, the new professional. That is, what messages are

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being transmitted: via formal policies, the ways that systems and organisations operate in everyday practice, or are conveyed by the people around them - through their actions, speech, and what they do or do not prioritise. In this way, new members of staff are inculcated into their professional tribes and make active sense of their environments.

Moreover, working as a teacher assistant in primary schools and further education has given me a perspective of education from the point of view of staff in supportive roles. This inevitably means that I also brought some preconceptions to the research, due to my own personal experiences. For example, observing that teachers varied in their attitudes towards support staff, with some valuing their role, experience or knowledge whereas others preferred to work independently or felt that their authority was undermined.

During the research process, I also read a wide variety of literature relating to the research topic from a number of different disciplines, and learnt more about theories of learning and behaviour within organisational cultures, all of which informed the work as it progressed (see section 4.1).

Imbalances of power

Another aspect of reflexivity is a consideration of differential power relations, and this can apply both to the social environments being studied and the research process itself. For example, conclusions drawn from data analysis and resulting recommendations may have practical implications, both for participants and the intended beneficiaries of research. In this instance, such relevant interested parties would include doctors and teachers, other health and educational professionals who work with them, and educators and trainers in the healthcare and teacher education fields. Therefore, it can be helpful if the interpretations

produced, which inevitably draw upon the unique standpoints of the researchers, can be fed back to and discussed with representative stakeholders. In this way, the conclusions and recommendations generated may be reviewed, to ensure that they are credible, relevant and practical to implement - with an eye to *how* practical change might occur as well as *what* outcomes are desired. This could be argued to be of particular importance when the researcher has 'outsider' status⁴⁴⁸. In this case, the author is not currently working as either a doctor or a teacher, but have worked in the field of education, giving me a better understanding of educational contexts.

Furthermore, issues of unequal power must be acknowledged as existing within the workplace. The novice professionals in this study will tend, on the whole, to have less power than both the senior staff above them and their employers, due to hierarchical structures and the nature of employment itself, which requires adherence to organisational rules and norms⁹. There is always the small risk that participants who talk freely and openly about their workplaces could face repercussions if adequate care were not taken to anonymise data and protect speaker identities. This aspect is discussed in more depth in the ethics section of the methodology (4.6).

Theoretical stance

Gaining an understanding of the topic of workplace support required synthesis of literature from across diverse research fields, from medical education to teacher education, to workplace learning, professional learning and organisational theory; each area being underpinned by somewhat different theoretical backgrounds and offering a variety of explanatory models. The literature review presented in chapter 3 reflects this wide scope, but the extent to which these literature had a direct impact upon the research design, data analysis and model development was vari-

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able. Box 4.1 below, illustrates how these theories and models made impressions upon each stage of the research journey.

Box 4.1 Theoretical influences

Social constructionist versus psychological learning theories

Theories of learning are relevant to this research, given its focus on workplace support, which may encompass learning from others during daily professional activities. As described in section 3.2.3 there are two main approaches to learning theory, being either broadly individualistic (e.g. psychological) or collectivist (e.g. social constructionist).

Social constructionism has played an important role in educational research through drawing attention to how language and social interaction influences human behaviour. Language shapes our concepts, ideas and understandings of the world, but also connects us to society by allowing us to communicate our personal feelings, cognitions and experiences. That we construct social reality in concert with others, on a daily and moment-by-moment basis seems evident. The use of a social constructionist lens can therefore be helpful when examining how learners actively engage in and make sense of their learning, as part of social dialogue⁴⁴⁹. Additionally, Foucault's ideas regarding power and knowledge highlight how social hierarchies and power imbalances can heavily influence which ideas are allowed to become dominant and which 'truths' are told.

However, certain forms of social constructionism may over-emphasise social forces at the expense of individual agency. Throughout history, both individuals and groups of like-minded persons have challenged and contested accepted norms and prevailing ideas, creating new words or reinterpreting existing language concepts to suit new ends. Without this capacity for individuals to change the social environments they inhabit, societal ideas would be unchangeable and language remain static.

The interplay of the individual and the social

Examining how this relates to workplace learning, it can be argued that all learning is a combination of both individual and social factors. It is possible to learn solely from one's own experiences, and to reflect on these internally by oneself, albeit within the constraints of a socially-produced language. As humans, we also have the ability to maintain a dialogue within ourselves, drawing upon an inner 'voice', our imaginations, and the tool of writing - to

think about, manipulate and redefine concepts. We tend to learn best however, when we also have opportunities to observe others in action, participate in joint activities, get feedback on our performance, and discuss our thinking out loud. Such opportunities rely on features of the social contexts in which we find ourselves and upon social relationships.

Therefore, this research was undertaken within a broadly interpretative paradigm, which acknowledges the multiplicity of interpretations and insights which could be drawn from the same data sets by differing researchers, participants and stakeholders. However, recognition was also given to personal cognitions and reflections narrated by participants, where relevant, as addressed by psychological learning theory. Also, the ability of individuals to contest meanings, practices and the social organisations they work in, as highlighted by critical theory, positive psychology and contemporary learning theories.

The intention was that a comprehensive model of workplace support should be able to integrate these multiple facets: taking into account the thoughts, feelings and cognitions of professional learners, and the environments in which these occur, whilst acknowledging interactions between these domains. For example, the formation of social identities and roles, learning through imitating others, and the shared creation of meaning through 'talk' are all activities which occur at the interface between the individual and the social, between one's own internal understandings and the linguistic concepts which exist as a shared resource. Other learning theorists who have taken similar approaches include Billet⁴⁵⁰, Illeris⁴⁵¹ and Eraut⁴⁵².

Structure and agency

During analysis of the F1 data, it was noted that participants described responding to their workplace environments in quite different ways. At this stage, theories of structure and agency were drawn upon and became a key influence upon data analysis and model formation (see section 8.2.7). These theories attempt to balance ideas of how individuals exert agency in the world, whilst being bound, guided and shaped by surrounding social and cultural contexts, these dual aspects of social phenomena being inextricably linked and intertwined^{434,435}.

Structure precedes and surrounds individuals, and may inhibit or facilitate agency to a greater or lesser extent. It is not fixed, but may be resistant and slow to change⁴⁵³. Agentic acts by individuals are more immediate, and can serve to reproduce or transform structure. This distinction between individual and social may appear an artificial one, with learners

almost always embedded within social contexts due to the socially-constructed nature of language. However, from an analytical viewpoint it is possible to examine structure and agency separately, as well as the interplay between the two, providing a more comprehensive picture of how individuals interact within social and organisational systems.

Thus, when analysing the F1 and NQT data, in addition to identifying any barriers or facilitators to support, a new theme was developed which captured participant responses to these factors, to answer RQ4: How do F1s and NQTs respond to these factors?

Additionally, when developing models of workplace support for newly qualified doctors, teachers, and similar newly-qualified professionals, agency was put at the centre of each model to depict the various ways that individuals might respond to, be constrained by, or exert influence upon their workplace environments.

Models of professional development

Models of professional development were used to aid understanding of the process of *becoming* a professional, and the various skills, qualities and attributes one might need to acquire to do so. Two such models were highlighted in the literature review (see section 3.3.2) and made a small contribution to shaping data analysis.

Cheetham and Chivers' provisional model of professional competence³⁰⁰ distinguishes between the different categories of competence which professionals must acquire, and this was helpful in becoming attuned to the full range of *types* of support that F1s and NQTs might describe as being provided, devising sub-themes to capture these types, and defining them in the analytical framework. This model also highlighted that the support required by new professionals may go beyond helping them to acquire technical skills or professional knowledge, to encompass the development of competencies such as context-specific problem solving and communication skills, an understanding of local rules and procedures, and emotional regulation.

The Dreyfus brothers' model of skills acquisition (1986, as described in Eraut)²⁹⁸ was useful for understanding how professional expertise develops via a gradual progression, from a novice's adherence to formal rules and guidelines to an expert's holistic use of pattern-recognition, tacit knowledge and professional judgement. It also highlighted the strengths and limitations of this process, such that experienced practitioners may find it a challenge to effectively communicate what they know to novices, or explain the reasons behind their decisions, and this was of relevance when identifying sociocultural barriers and

facilitators which related to different support sources (see section 7.5).

Organisational cultures and communities of practice

Theories regarding how professionals are located within wider communities of practice (as outlined in section 3.4.1) were informative when thinking about how new teachers or doctors might obtain support beyond their immediate workplace environments. This became particularly salient when it was noted that some teachers sought support from wider professional networks outside of their schools, whether that be face-to-face or via social media. Thus, further questions were incorporated into interviews with NQTs regarding these additional forms of support and these wider networks were included in the models of workplace support.

Theories relating to organisational cultures (see section 3.4.1) were useful during later stages of analysis, in trying to understand the features of workplace environments which make them more or less supportive. The bringing together of different strands of theory from medical and teacher education literature also allowed useful comparisons. For example, the distinction between school cultures which are balkanised or collaborative could also be seen to relate to medical departments and professional silos, which have the potential to be isolated and divided, or may operate in a more cooperative, inter-professional way. Similarly, the hierarchical nature of medical cultures may be seen to an extent in some schools, making it more difficult for new teachers to obtain support from senior staff.

Ecological theories

Towards the end of the research process, having developed bottom-up data-driven models of workplace support, it was noted that ecological, activity theory and whole-systems approaches to understanding organisations might prove useful for framing future research on workplace support (see section 8.4.5). Such theories are increasingly used to aid understanding of complex social and organisational systems, being composed of individuals who inhabit smaller social groupings or teams (micro-cultures or ecologies), which are themselves nested within larger systems such as organisations, communities of practice, and surrounding cultural/policy/political environments. These theories were felt to be of particular relevance given the findings of interconnectedness between factors at the levels of individual agency, the sociocultural, organisational and material.

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4.2.3 Stories as data

The first stage of this study consisted of a secondary analysis of three existing data sets from first-year postgraduate doctors (F1s), including individual and group interviews, and longitudinal audio diaries, all of which used narrative methods. The second stage involved primary data collection from newly-qualified teachers (NQTs) in their first year of practice, using individual narrative interviews and online stories of support collected using a survey. These methodological choices were partly informed by the availability of existing narrative data from medical professionals, previously noted to contain many stories of support. This methodological strategy also confers many advantages for the study of workplace learning and support. Narrative data collection methods generate personal stories of experience, with the aim of capturing the realities of every-day practice. As such, they can uncover the 'nitty-gritty' details of 'what is occurring' within complex working environments, in ways which might not be captured adequately by other methods.

To hear participants' narrations of their thoughts, cognitions, feelings and experiences during their experiences of learning, support and feedback, provides us with the specific who, what, when, where and why circumstances entailed, and the ways in which participants actively make sense of their experiences through the telling of stories. The stories we narrate about ourselves and others help us to actively construct and communicate our identities, personal histories and stance in relation to others. For example, in this research we may be interested in how professional identities and social interactions influence behaviours and attitudes towards workplace support-seeking and provision.

It is acknowledged that any method reliant upon recollection has inherent limitations due to human memory. However, as touched upon previously, the

idea that one can recall events in their 'true form' is highly contestable, given the constructed nature of social knowledge. Interpretations of events are also subject to change and influence; for example, due to loss of memory over time, hearing others retell different versions, or recounting a story for different audiences. Narrative methods aim to capture events as close to their time of occurring as possible, eliciting specific, recent autobiographical episodes, with as much detail and 'accuracy' as possible. This, it is argued, allows a deep understanding of social phenomena which might be less easy to obtain via alternative methods. Traditional interviewing techniques such as semi-structured interviews, whilst similar in many respects to narrative methods, may be more susceptible to lapses in recollection or social-desirability pressures. This is due to the tendency of participants to generalise, summarise, and shape their responses to perceived researcher expectations, when not grounded by instructions asking for specific incidents

It must be borne in mind that narrated events are always from the specific point of viewpoint of the narrator, who is actively engaging in 'sense-making' (trying to understand events) through the process of relating their story. However, this could be seen as an advantage, because of the ability of narratives to capture the insights, feelings and thoughts of the learners themselves. Gaining a full comprehension of learning processes may be difficult if one only observes external events, and observational methods have the further limitation that they can alter the learning processes and contexts of interest, due to changes in participant behaviour when watched. Having said this, different types of methods can be complementary to each other and add to a field of knowledge upon many levels. For example, looking at future research on informal workplace support, if one wished to pilot interventions which promoted interprofessional support within medical or teaching environments, quantitative measures such

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as medical readmission rates, prescribing errors, teacher retention or student performance could be used to assess impact. Additionally, it has been suggested that video observation methods are less influential upon behaviour than traditional approaches⁴⁵⁴, and video elicitation techniques might act as an aide memoir for workplace participants, where time and resources were sufficient⁴⁵⁵. A more in-depth description of recruitment, data collection and analysis methods follow later in sections 4.8 and 4.9.

4.3 Narrative Methods

Stories are narratives with plots and characters, generating emotion in narrator and audience, through a poetic elaboration of symbolic material. This material may be a product of fantasy or experience, including an experience of earlier narratives. Story plots entail conflicts, predicaments, trials, coincidences, and crises that call for choices, decisions, actions, and interactions, whose actual outcomes are often at odds with the characters' intentions and purposes²³³.

4.3.1 Why do people tell stories?

There are multiple reasons why people tell stories. They are both descriptive and reconstructive^{456,457}, being a primary method of organising, re-visiting, thinking through, explaining, and creating meaning from life experiences. Narrators actively select and describe past events, usually ordering these temporally, but sometimes diverting into 'asides' or travelling back in time to provide context, and in the process of telling these events they also interpret and make active sense of them⁴⁵⁸. Stories inevitably require an agent or agents who act, with motives and purposes for their actions, and there may also be an evaluative or moral stance taken regarding the behaviours narrated and resulting consequences^{459,460}. Dur-

ing these processes, storytellers may: gain new perspectives; seek feedback or interpretation; try to persuade listeners of a certain point of view; make social connections through shared experiences or viewpoints; provide teaching or entertainment; represent themselves positively to self and audience; seek to deceive, mislead or blame others; and excuse, justify or provoke action^{461,462,463,458,464,460}. The stories people tell also occur within wider social and cultural contexts, and may draw upon the dominant stories which circulate in that society^{465,461}.

4.3.2 Why use stories as data?

Given that stories are a natural way for people to organise and relate their experiences, they will often do this within a research format too, especially when encouraged to do so^{466,467,462}. Narrative methods, through eliciting individual stories of significance to the teller, can produce rich and detailed accounts of personal experience, grounded in particular places and times. It has been claimed that narrative methods also encourage greater feelings of equality and control, as participants freely choose which events to relate and the order in which specific details emerge. Allowing participants thinking space to follow diversions of thought, move forward or backwards in time, or take the narrative in a new direction, hopefully ensures that not only is their story complete but that the narrator feels valued and heard⁴⁶⁸. This freedom encourages a 'stream of consciousness', where associations between different stories and events can form, so allowing a chosen topic or incident to be explored fully.

Narrative methods are frequently used to generate spoken data, as in this study. However, narrative methods can be applied to any type of story^b; for instance, using visual pieces such as paintings, or written texts such as drama or

^bMany researchers and writers use the words 'narrative' and 'story' interchangeably, whereas others differentiate between the story itself and the telling of it. In this thesis, I use both terms to refer to the stories told by participants during data collection, in audio and textual formats.

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personal diaries⁴⁶². The data sets used in this study reflect some of the diversity of methods used in narrative research, and a certain amount of flexibility was offered in the ways that participants could communicate their experiences. For example, in the 'A window into the lives of junior doctors' study³⁸⁷, participants could opt to take part in focus groups or individual narrative interviews. During the second stage of research on new teachers, both interviews and an online data collection method were offered, allowing busy teachers multiple ways of accessing the research if they so chose.

4.3.3 Limitations of narrative methods

All research methods have their strengths and drawbacks, and an awareness of these can help us to make methodological choices and understand the limits of our findings. Some of the limitations of narrative research are as follows:

- The issue of 'representation' is one which cannot be escaped, as story-tellers always have some awareness of (perceived) audience⁴⁶⁹, whether that be the researcher, future readers, or the organisations they work for. Responses to this awareness, conscious or not, may include positioning of self as in the 'right', moulding stories to perceived objectives of the researcher, or editing events which narrators fear might elicit judgement. It is therefore important that researchers reassure respondents as to the anonymity and confidentiality of their data, and are clear about the aims of their study, to create an environment where respondents feel able to speak freely. Although there are inevitable imbalances of power between researcher and participants in all research designs, a narrative format which allows participants the space to think 'out loud' and share inside perspectives without fear of repercussions, are more likely to result in honest, detailed accounts⁴⁶⁴.

- In qualitative research, replicability of data is not possible, and this issue is discussed further in section 4.5. In the case of narratives, there is the additional expectation that one might get a slightly different story each time it is told. However, one would also anticipate that if enough narratives are collected and analysed, then certain themes would occur repeatedly, indicating issues of importance to the speakers.
- It is also possible that stories elicited as part of a research project are somehow less 'natural' than stories which arise during every-day life, as we collaboratively make sense of our experiences and share them with others. Some stories may also be well-rehearsed, being natural tools with which to persuade, position self and others, and justify actions. Whether this is a problem depends on your point of view, but if one is trying to understand the factors which influence support-seeking and provision in the workplace, then both perceived and actual barriers and facilitators will be of interest. Furthermore, if the research is designed so as to encourage a focus on recent events, rather than historical ones which have been re-told many times, this arguably increases 'accurate' and detailed recall of events, which can only be of benefit.

4.3.4 Narrative interviews

Traditional styles of interviewing and data analysis have long been criticised as neglecting the way in which people primarily make sense of the world, through the medium of stories or narrative accounts^{466,467}. The use of open-ended questions which can be adapted to a topic as it unfolds, and prompts which encourage narrators to continue or add detail, allow greater flexibility of participant response than some traditional interviewing techniques, which can constrain length and type of answer. In this way, researchers can 'invite' respondents to create responses in the form of narrative accounts, which draw upon their own personal

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experiences and provide a deeper understanding of a chosen topic⁴⁷⁰.

Narrative interviews are generally conducted with several important considerations in mind.

- First, that interviews are ideally modelled on a 'conversation' between two equal parties, albeit one guided by the researcher⁴⁶⁴. Using narratives during this conversation draws upon a natural form of knowledge production, as compared to traditional interview methods with lists of formal questions which may be perceived as somewhat interrogatory.
- Secondly, that the questions asked aim to elicit specific instances rather than generalised ones as much as possible. Thus, narrative interviewers use the technique of asking participants to recall specific times, using questions such as 'Can you recall when that has happened recently?'
- Lastly, that researchers try to allow time and space for participants to elaborate on each story, event or experience until completion. The researcher may therefore use a combination of encouraging utterances (for example, Mmhm, or What happened next?), active listening, and occasional reflection to check understanding.

However, both researcher and participants may be influenced by prior ideas regarding what research consists of, and commonly existing question-and-answer 'stimulus-response' models of interviewing, due to previous experiences of completing surveys on the telephone or face-to-face. Individuals may also vary in the extent to which they tend to generalise experiences or can recall specific events and experiences in detail.

4.3.5 Solicited narrative audio diaries

Diary methods can produce comprehensive accounts of events⁴⁷¹, capture the small details of daily life, and provide a fascinating ‘window’ into participant’s personal experiences⁴⁷². Solicited diaries differ from personal diaries, being produced specifically to answer research questions, rather than spontaneously for personal reflection or autobiography⁴⁷³, and they also produce a somewhat different type of data to written diaries. Though participants record data whilst alone, the data produced often appears quite conversational in nature; with participants using virtual ‘turn-taking’, asking themselves questions they imagine the researcher might ask or addressing the researcher directly, using humour, and modulating the tone and pitch of their voice^{474,475}. Therefore, although this format allows more freedom of expression than some other means, the data produced is always a co-construction between the researcher(s) and participants⁴⁷⁶. Given that narrative audio diaries have been less frequently used in social sciences research than interviews, and that this was one of the methods used to collect the data undergoing to secondary analysis (section 4.8), some consideration is given to their methodological advantages and disadvantages in Box 4.2.

Box 4.2 Strengths and limitations of narrative audio diaries

Strengths

Flexible Possible to narrate diaries whilst doing other activities, at convenient times^{477,478}, so useful for studying busy professionals working unsociable hours. Can also be combined with other methods, e.g. stimulating recall during interviews^{479,477}.

Control over data produced⁴⁷⁷, due to greater ‘distance’ between researcher and participant⁴⁸⁰. Participants may choose data to record, re-record, erase or share^{481,482}.

Therapeutic Intimate spaces, in which to vent feelings or reflect^{477,484,478}.

*Rich experiential data*⁴⁷⁷. Immediacy of recording ‘moment-by-moment’ events as they occur^{477,485,486} may give rise to spontaneous reflection^{487,477}, increase detail and decrease important omissions^{479,485}.

Limitations

Expensive Participants require guidance on equipment, and the nature, timing and frequency of data collection⁴⁷⁶. Rich, complex data, whilst advantageous for investigating complex social phenomena, has greater transcription times and costs.

Selectivity of data may lead certain phenomena to be systematically under- or over-reported⁴⁸¹. Some participants feel socially inhibited, worry that responses are not ‘correct’, have concerns about data confidentiality, or privacy during recording^{477,483}.

Reactance The practice of diary-keeping may itself cause behaviour change.⁴⁸¹

Inconsistency in number and duration of recordings, alignment with research questions, elaboration, candidness and self-consciousness, due to individual variation, demographic characteristics, topic studied or research design^{487,477,488,489}.

Physical absence of researcher may elicit frank, articulate accounts^{487,481}. Researchers, however, have an 'invisible' presence; as intended audience, setting the research agenda and representing possible judgement⁴⁷³. Researcher awareness varies⁴⁷⁷ but familiarity tends to increase comfort and honesty over time^{490,482}.

Instructions Dilemmas over whether to use detailed prompts and open questions, to provide consistency, reduce participants anxiety, and ensure alignment of data with research questions^{483,474}, or be less prescriptive^{491,474} to capture a full range of experience⁴⁹².

Longitudinal studies Ability to capture complexity and change over time⁴⁸⁵, demonstrating shifts in situation⁴⁷⁴, the contradictory, 'messy' nature of attitudes and experience, and transformations of perspective due to the reflective process. In interviews, participants may pressure to produce coherent, consistent accounts⁴⁷⁷.

Time commitments, over longer periods, may cause greater drop-out, so regular reminder or contact events required to maintain participation and quality^{481,475}. May have lower attrition rates than written diaries^{493,492}.

Audio equipment is widely available, relatively cheap, portable, and more accessible for physical disability or low literacy, reducing participant selection bias^{487,477}.

Self-selection bias Individual, social, cultural and class differences in acceptability of diary-keeping⁴⁷⁶, participants' motivation to record, articulacy, and comfort in sharing personal experiences and feelings⁴⁸³.

*Personal and sensitive topics*⁴⁸⁴ can be explored due to the safe 'space' provided. May give marginalised participants a voice in participatory research⁴⁹⁴.

Ethical challenges include ensuring privacy during recording,⁴⁷⁷ greater likelihood of highly emotional events narrated, safeguarding distressed participants given time delay between recording and receiving data⁴⁷⁷, and emotional support for researchers⁴⁷⁴.

4.3.6 Considerations when analysing narrative data

When analysing narrative data, the following considerations can be borne in mind:

- The role which interviewers and researchers play in constructing the data; for instance, through the questions or instructions given to participants, their ways of listening, and contributions during interviews such as encouraging noises, prompts or interruptions.
- The role of researchers in interpreting the data; for example, choosing where narratives begin and end, which at times is ambiguous (certain themes may be returned to repeatedly, and some narrators will provide context before making their 'main point'), and in identifying which reoccurring themes are most important given the impossibility of including everything of interest.
- The extent to which the researcher is an outsider to the participant's world or has an understanding of that context. For example, the author has worked within education as a teaching assistant but not trained as a teacher, whereas the world of medicine is a novel one. This is not necessarily a drawback as those who work within an institution may cease to notice attributes of their workplace culture which are taken for granted, so that sometimes a fresh perspective can help draw new insights. However, it is one factor to be considered during analysis.
- The ways in which group narratives are co-constructed by several speakers or writers, some of which may dominate conversations, and how collectively they may draw upon organisational narratives or personal experiences to a greater or lesser extent.
- How the telling of stories is a creative, meaning-making experience, as the narrator has an opportunity to revisit events and construct a coherent narrative from these events, aimed at a particular audience.

4.4 Thematic analysis

4.4.1 What is thematic analysis?

Thematic analysis is a method for 'identifying, analysing and reporting patterns', across an entire data set^{495(p.6)}, with these patterns of repeating data being known as themes. The concept of exactly what a theme consists of is difficult to define, but broadly, a theme is an idea which is repeated a number of times across a data set and represents something important about the data in relation to the research question or questions. However, the number of times an idea needs to be repeated (its prevalence) and whether an idea is deemed significant enough to warrant inclusion as a theme, is a matter for subjective judgement. Themes should ideally also display

- (i) internal homogeneity: that is, data items and codes within that theme cohere together, and
- (ii) external heterogeneity: each theme or sub-theme is clearly distinct from other themes identified at that level of analysis. Therefore, for any given theme or sub-theme, if there are other sub-themes or themes which have overly similar definitions or contents, this may indicate that categories can be merged further⁴⁹⁵.

Themes can be purely descriptive, or more analytic, representing the data at a deeper, more abstract level of meaning. Analysis begins by labelling each section of the data with multiple specific codes to summarise those data and then amalgamating codes which are similar in meaning and content into wider sub-themes and themes. Thematic analysis therefore allows us to synthesise a whole data set, to produce a 'map' of the data it contains and summarise what the data is telling us as a whole.

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4.4.2 Advantages and disadvantages of thematic analysis

One advantage of thematic analysis is that it is a very flexible methodology⁴⁹⁵ which can be applied to a wide range of qualitative data types such as interviews, diaries and newspaper reports, employed in a variety of disciplines (e.g. educational and social policy research, psychology, sociology, ethnography), and does not itself dictate a particular theoretical or epistemological stance. A further strength is that, when applied systematically, it can be used to find commonalities and divergences across large qualitative data sets, and this is particularly useful for data collected as part of multiple-researcher teams⁴⁹⁶.

The main critique of this methodology mentioned in the literature is that of vague descriptions and a lack of detail regarding exactly how thematic analysis has been carried out⁴⁹⁶. However, if the guidelines which researchers base their analyses on are outlined clearly, with explicit statements of assumptions and processes followed, the reader should be able to see how findings were produced from original material. A further consideration is the way in which thematic analysis could potentially lead to a fragmentation and de-contextualisation of the data, through the creation of themes across data from multiple participants and the use of computerised coding systems⁴⁶². However, this can be guarded against by ensuring that holistic forms of participant data are returned to often, to check interpretations. Note can also be made of those participants whose views or experiences do not accord with other voices, to ensure the full range of variation in the data is captured.

4.4.3 Approaches to thematic analysis

There are a number of possible approaches to thematic analysis which have been described in the literature and these differ in several important aspects:

- First, there are variations with regard to what the main focus of analysis is, with two broad streams being that of 'experiential' versus 'critical' perspectives⁴⁹⁷. Experiential perspectives focus primarily on the content of 'what' participants say about their feelings, thoughts and behaviours, and the events that they have experienced, taking these perspectives more or less as face value. Critical perspectives, on the other hand, focus on the structure and purposes of participant's talk, and 'how' they construct those experiences through the use of metaphor, social discourses and rhetoric, whether that be to position themselves and others in particular ways⁴⁸⁶, to produce change, or resist authority⁴⁹⁸.
- Additionally, differences exist in the extent to which themes are developed in a top-down or bottom-up manner. For example, analysis may be a largely inductive, 'data-driven' process, with codes and themes being derived from the data as analysis progresses and no *a priori* codes stipulated beforehand⁴⁹⁹. Alternatively, it may be more deductive, with the use of a coding template or book informed by previous research, theoretical models or the research questions themselves⁵⁰⁰. It is also possible to combine the two strategies⁵⁰¹.
- When thematically analysing narrative data types, there are further distinctions regarding whether narratives are treated as a whole cases during thematic analysis, or whether themes are identified across multiple narratives⁴⁶².

In this research, a thematic framework was employed, as described by Ritchie & Spencer^{502,503}. Advantages of this method include its systematic nature, transparent steps outlining how it should be carried out, and its ability to produce a comprehensive descriptive summary of the data⁵⁰⁴. An inductive approach was taken initially so as to explore what the data contained with as little pre-judgement as possible, with these themes being used to subsequently develop coding frameworks which were then applied to the data as a whole. Themes developed during analysis of the medical data were also used as a basis for the broad themes used to explore the teacher data.

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For both the junior doctor and teacher data, the prime focus of this thematic framework analysis was on what participants said rather than how they said it. Themes were developed so as to describe and identify patterns of how interprofessional learning and support currently does or does not take place, and possible underlying reasons for these patterns. This included perceived barriers and facilitators to learning, support and feedback, and the responses of participants to these factors, with an evaluation of current processes to produce recommendations for change. The way in which language was used to achieve particular ends by participants was not the main focus of analysis. However, as a bottom-up process, the analysis was open to following interesting themes as they were identified, if felt to be of relevance to the research questions or illustrative of general patterns.

More specific information on how framework analysis was carried out during each of the three stages of research can be found in sections 4.7, 4.8 and 4.9, which describe the methods in more detail.

4.5 Trustworthiness

It is important to maintain high standards of quality in research, given that recommendations for action may be made on the basis of resulting findings. In quantitative research, the terms validity and reliability are frequently used to assess rigour. Although there have been some attempts to redefine these concepts to make them more relevant to qualitative research^{505,506}, many see their use in naturalistic paradigms as problematic⁵⁰⁷. In this study, I opted to use the term trustworthiness, a concept more frequently used within qualitative research domains to think about how high quality research may be achieved

and evaluated. It also avoids any confusion which might arise from using terms defined differently in quantitative research and which rest upon differing epistemological assumptions.

A central tenant of trustworthiness is that in order to assess quality, data collection and analytical methods should be explicitly described in as much detail as possible. This allows researchers and reviewers to be able to see the process which has been gone through to obtain the findings and conclusions presented, and therefore allow assessments of rigour⁵⁰⁸. My own understandings of trustworthiness have developed somewhat throughout the process of carrying out this research⁵⁰⁹. However, the initial research design was primarily influenced by Guba and Lincoln's five criteria of trustworthiness⁵¹⁰: credibility, transferability, dependability, confirmability and authenticity⁵¹¹. For more detailed definitions of these criteria, and reflections on how I have applied these in the research, see Boxes 4.3 to 4.7.

Box 4.3 Credibility

Criteria

Credibility corresponds to internal validity in quantitative research and seeks to answer the question: to what extent do the data and research findings show 'a true picture of the phenomenon under scrutiny'⁵⁰⁸.

Guba⁵¹⁰ warned that data can be 'distorted' if researchers fail to challenge their own preconceptions and that data could be influenced by factors such as a lack of rapport, or participants trying to anticipate researchers' aims. Some suggested solutions have included 'prolonged engagement' with participants and data collection contexts, peer discussions and co-analysis, and providing rich descriptions of data collection contexts⁵¹².

Application

The idea that credibility refers to a match between research findings and a 'true picture' of social phenomena is suggestive of realist ontologies⁵¹³. However, although objectivity is not possible, I can reflect on and acknowledge my own subjective perspectives; for example, how having worked as a teaching assistant might influence my analysis of teacher data. I can also try to represent the variety of perspectives which participants convey, in resulting research outputs.

The concept of 'rapport' is difficult to define or demonstrate to others⁵¹⁴, but broadly encompasses ideas of empathy, respect and trust. In my study, I viewed rapport as a conscious intent to put participants at ease. In face-to-face interviews, I tried to create a relaxed environment by providing refreshments and using relatively informal interview schedules. I explained that our aim was to capture teachers' unique stories, with no right or wrong answers, and reiterated how anonymity and confidentiality of data would be addressed, hoping this would enable participants to speak more freely. I was aware that creating rapport during telephone interviews was more challenging, given a lack of the body language cues we usually use to gauge others' feelings. Trust may be built up, not just during interviews, but throughout all interactions from initial contact to follow-up⁵¹⁵.

Using secondary data, I was unable to engage with medical participants and contexts as the original researchers had done. However, I aimed to better understand medical workplaces by shadowing a hospital pharmacist, viewing documentaries on junior doctor life, and reading about new doctors' real-life experiences. Prolonged engagement, however, is not usually considered necessary for interview research⁵¹⁶.

Box 4.4 Dependability**Criteria**

Dependability is analogous to reliability in quantitative research, which is concerned with stability of findings⁵¹⁷. In qualitative research, it is not possible to replicate findings, but it may be possible to replicate methodology to an extent. Accordingly, dependability in this sense relies on research processes being transparent and so 'auditable'⁵¹⁰.

Explicitly describing methods in sufficient detail and avoiding vague statements such as 'data was analysed'⁵¹⁸ allows others to repeat methods if desired and critique conclusions drawn^{508,519}. This may include notes on theme development, time-lines of activities, and influences on data collection and analysis⁵¹². Participants quotes can be carefully chosen so as to represent the full 'range and tone' of participant responses⁵⁰⁶.

Application

For this research I used Framework analysis, a type of thematic analysis described by Ritchie and Spencer^{502,503}. This was primarily selected for its transparent procedure, which is systematically applied to all of the data, and is easily referenced, understood and repeated by others⁵²⁰. In subsequent sections of the methodology (4.8, 4.9, 4.7), I have clearly described the research process undertaken, including the extent to which analysis was driven by the data itself and previous theory. Although there are necessary limits on the number of quotes which can be included, these have been selected to try and represent all major themes identified and the full variety of participant viewpoints.

Inevitably, there are aspects of the research process which remain 'invisible' to others, given the messy complexity of data analysis which may involve steps which are difficult to articulate (hence the feeling sometimes that themes 'emerge', although they are always a product of researchers' interactions with the data). Space constraints can be another factor which affects how much detail may be shared. A high level of methodological detail is described in this thesis. When writing for journals, providing this level of detail can be more challenging; however, the option to provide supplemental documents online is increasingly available and may be used to share additional details, such as full coding frameworks, via online appendices.

Box 4.5 Confirmability

Criteria

Confirmability is analogous to objectivity in quantitative research. Whilst acknowledging multiple possible perspectives, one wishes to feel 'confident'⁵²¹ that findings plausibly represent 'the situation researched', that is, the data and participant views⁵²², rather than researchers' 'personal beliefs, motivations or pre-existing theories'⁵²³.

Again, a thorough description of processes can help readers see how results are obtained from the data⁵²⁴, and self-reflection can make biases more explicit⁵²⁵. Co-analysis and peer discussions to achieve 'congruence'⁵²⁶ may act as further checks against 'wild interpretations', allowing alternative explanations and rival themes to be explored⁵²⁷. Immersion in data and the field can also help researchers gain deeper understanding of data collection contexts⁵¹⁷.

Application

In my own research, the systematic nature of framework analysis may help to avoid 'cherry-picking'; that is the selective analysis of data which supports a particular position⁵²⁸. It has been suggested that researchers move continually between the data, their interpretations, and back again, to check understandings⁵⁰⁶. To this end, the framework created was left open to revision during all stages of data coding, so that novel themes, categories and understandings might be identified.

Additionally, active discussions were carried out with 'critical friends'⁵²⁹ who formed part of my wider research team. This included including sharing sections of raw data and corresponding analysis, themes identified and theoretical models, so that my personal understandings and interpretations might be challenged. For example, during analysis of the medical data, a selection of five transcripts were shared with my supervisors, which represented all of the original data sources (from three research studies) and data types (interviews and audio diaries). Each person viewed and made notes on these transcripts separately and these interpretations were shared during discussion.

'Immersion' in the data was achieved during the familiarisation stage through re-reading and re-listening to all transcripts and audios repeatedly.

Box 4.6 Transferability**Criteria**

Transferability is comparable to the concepts of external validity or generalizability in quantitative research. Qualitative research is not 'generalizable' in this sense, as the results of research undertaken in one setting is only transferable to another to the extent that these contexts are similar.

In order to judge transferability, the reader requires sufficient information regarding the 'researcher as instrument'⁵¹², participants recruited, data collection contexts and researcher-participant interactions⁵⁰⁸.

Application to research

In my methodology, I have documented the number and regions of schools and hospitals where data were collected, the recruitment methods and inclusion criteria used, participant demographics, the number, length and timings of data collection episodes, the nature of interview questions and schedules, and descriptions of the workplace contexts studied.

There may be conflicts between the amount of information required to allow transferability judgements and the space constraints of journals. Further limits may be imposed by ethical considerations of confidentiality and anonymity. For example, for the teacher data, I have described the broad regions where data were collected and some participant demographics, whilst taking care to omit information which might inadvertently identify particular schools or participants.

Box 4.7 Authenticity

Criteria

Guba and Lincoln's final aspect of trustworthiness is quite multi-faceted but, broadly speaking, encompasses issues of fairness and ethical treatment, of participants themselves, and those that the research findings will have impact upon in the future.

This may include aspects such as: whether all participant viewpoints have been equally represented, responsiveness of researchers to participant feedback, whether participants are adequately informed as to the purposes and use of their data, and whether the research empowers participants and stakeholders⁵³⁰.

Application to research

A number of steps were taken to address such concerns in my own research. All teacher participants were informed as to the uses their data would be put in the information sheet. Both formal and informal opportunities have been sought (for instance, when attending medical conferences where junior doctors were present), and are in further planning, to share summaries of results and request feedback on proposed recommendations, with new doctors, teachers, and other stakeholders such as educators. Summaries of findings will also be sent out to all teacher participants after the research has been concluded (original medical participants no longer being contactable due to ethical considerations regarding storage of and access to contact details).

'Member-checking', where raw transcripts are shared with participants for feedback, was not included in this research design. Although some researchers see this as essential, others have questioned whether such practices do actually increase credibility⁵³¹ and have cautioned that they can raise as many methodological dilemmas as they solve⁵³². For instance, whether participants have time to actively engage with re-reading transcripts, whether their perspectives on the data may have changed over time or be influenced by personal interests, how one deals with conflicting interpretations of the same data by researcher and participant, or whether power differentials may encourage participants to defer to researcher 'expertise'⁵³³.

4.6 Ethical considerations

4.6.1 Stage one: The ethics of secondary analysis

What is secondary analysis?

It is possible to define secondary analysis in various different ways, and these differences can have a bearing upon the ethical considerations required for analysis. In the context of this research, for example, it was not clear-cut whether the re-analysis of data collected by the research team consisted of secondary analysis or could be considered an extension of the original research studies. For the purposes of this research, I drew upon the following definitions.

Heaton(1998) originally defined secondary analysis as :

*the use of existing data collected for the purposes of a prior study, in order to pursue a research interest which is distinct from that of the original work*⁵³⁴

and more recently as

*the 're-use of pre-existing qualitative data derived from previous research studies' to 'investigate new or additional research questions' or to 'verify the findings of previous research'*⁵

including in both definitions those instances where original researchers return to data for subsequent analyses. Hakim(1982) defined secondary analysis as:

*any further analysis of an existing data set which presents interpretations, conclusion of knowledge additional to, or different from, those presented in the first report on the enquiry as a whole and its main results*⁶.

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Using these definitions, and by virtue of the fact that I was a new researcher coming to these data with fresh research questions (albeit with much overlap with original research questions, and with the support of the original research team), we considered that stage one of the research constituted a secondary analysis. Therefore, the implications of this for ethical conduct were considered.

Issues of participant consent

Much debate exists on the best way to carry out secondary analyses of qualitative data, particularly with regard to the ethics of participant consent. It has been argued that consent given by participants in original studies should not be taken as 'once-and-for-all' allowing unlimited further use of data for any purpose⁵³⁴. Additionally, that participants who give 'generic' forms of consent may not fully understand what those subsequent purposes could be⁵³⁵. However, tracking down original participants in order to re-obtain consent for new purposes can be difficult; for example, due to changes in employment or location. This may also cause unnecessary inconvenience to participants who may have no objections to further use of their data. It is argued here that a reasonable balance can be achieved between these two aims: that of taking precautions to ensure ethical use of data, and of practicality.

Through a careful study of the format and language of original consent forms, it is possible to consider which purposes the participants might reasonably expect or wish their data to be put to⁵³⁴. In particular, looking at: whether they agreed for their data to be stored for a particular length of time, whether they agreed for those data to be used in the future, and whether the broad research questions and analytical methods described in the information sheets are aligned with the new proposed research questions and methods. In this study, the original consent and information sheets for each of the data sets used were revisited

by the research team. All participants had agreed for their data to be stored for future use, and the original research questions and aims of these studies were judged, by the research team and the University of Exeter Medical School Research Ethics Committee, to be strongly aligned with the aims and research questions of this project.

The importance of context

Context is critical for the understanding of research data⁵³⁶. I am aware that carrying out a secondary analysis, as a researcher who was not part of the original research teams, could be viewed positively or negatively. On the one hand, an opportunity to approach data with slightly different research questions, from a differing research background, could provide a 'fresh' perspective which is immensely productive, allowing new meanings and interpretations to be produced and 'taken-for-granted' understandings to be questioned⁵⁰⁶. On the other hand, not being embedded in the original social contexts of study design, data collection and meeting participants in person could mean that subtle but vital understandings of these workplace environments could be neglected.

In order to address this issue, several measures were proposed.

- First, that the research methods for each of the original studies and how the studies had been presented to participants were examined thoroughly, so that the contexts in which individual data sets had been produced was better understood. This included a consideration of the methodology, epistemology and reflective stance of the original researchers.
- Secondly, that I gained a better understanding of the real-life experiences of junior doctors and the terminology they used. This was achieved by work-shadowing a hospital pharmacist in their work environment, by viewing documentaries which showed the real-life situations and events that these profes-

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sionals encounter, such as 'Junior doctors: Your life in their hands'⁵³⁷ and 'Hospital'⁵³⁸, and read books such as 'This is going to hurt'⁸⁵, as well as numerous research articles describing these contexts (see chapter 2).

- Thirdly, analytical themes, conclusions and models derived from the data were shared and discussed with some of the original researchers (now acting as joint supervisors), as part of a collaborative research process. Plans were also drawn up to share findings with relevant stakeholders, such as new doctors and their educators, at various medical and educational conferences and events. This allows participants and end-users of the research opportunities to comment upon resulting recommendations and the perceived practicality of implementation.
- Ideally, it would have been useful as part of the familiarisation stage to listen to the original audio recordings of the transcripts and diaries, in order to add to context. However, given that these audio files contained much personally-identifying information, issues of confidentiality and anonymity meant that this was not desirable.

Ethical clearance

Ethical clearance was granted for this stage of the research by the Graduate School of Education ethical committee, and permission was also granted by the original principal investigators at the Universities of Dundee (data sets 1 and 3) and Cardiff (data set 2) and their respective ethical committees.

4.6.2 Stage two: The ethics of primary data collection from newly-qualified secondary school teachers

Voluntary informed consent

Steps were taken to ensure that participants had sufficient information to understand:

- the purpose, methods and intended uses of the research
- what their participation entailed and any risks or benefits which might be involved
- the voluntary nature of participation and their right to withdraw at any time
- how their information would be used and reported, who would have access to that information and how it would be stored.

This information was conveyed through the provision of information sheets, sent out before-hand and with the key points reviewed verbally before interviews began. In addition, the consent forms asked participants to read a number of statements about the research and initial each one, before signing and dating the form at the end to ensure they understood and consented to all aspects of the research. Participants had the opportunity to ask questions before they signed consent forms, and during any stage of the research, with contact details provided on the information sheets. The design of this research study did not involve any deception.

Right to Withdraw

All participants were made aware they had the right to withdraw from the research at any time, for no reason. They could also request that their data be destroyed, up until the point at which data had become part of the overall analysis. Participants were recruited directly via email and social media, rather than directly via their schools, in order to reduce any risk that they would feel under any undue pressure to take part in the study.

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Possible Risks to Participants

No questions were asked relating to sensitive topics and it was not predicted that any aspect of this study should pose risk of serious harm. However, consideration was given to the following possibilities:

- Participants becoming visibly upset when recalling stressful incidents in the workplace, who were experiencing difficulties in their workplace, or disclosed mental health issues such as depression or anxiety. Signposting information regarding support services was kept readily available in interview packs and similar information was included within the information section at the beginning of the online survey.
- In the rare case that an incident was disclosed where breach of confidentiality would be required, due to a risk of serious harm to a participant, colleague or pupil, this event was to be immediately discussed with my supervisory team.
- No young people or vulnerable adults (as defined by the Safeguarding Vulnerable Groups Act, 2006⁵³⁹) were recruited as participants in this study. However, teachers did mention students in stories of workplace support, and could have accidentally revealed confidential matters relating to other staff or children in the school as part of these narratives. Participants were therefore encouraged, before interviews began, to avoid naming specific staff and children or information which might identify them. In addition, all names and personally-identifying information in the data were removed or replaced during transcription and anonymisation processes.
- Schools and other staff could dislike the way they are portrayed, and representation of participants and other staff in research publications could potentially have impacts for participants, their families and organisations. Care was taken both during the anonymisation stage and when selecting quotes for publication, that places of employment and participants could not be inadvertently identified from unique information in quotes or from overly-descriptive demographic de-

tails. All participants were to be provided with a summary of analysis once the research is concluded and given opportunities for feedback.

- For interviews taking place within school settings, appropriate checks on the data collector can be requested by schools. A DBS certificate was previously obtained for such contexts and was registered with the update service.
- Participants' identities, personal data and interview data were additionally protected through correct storage of electronic and printed information.

Data protection and storage

All interview data were anonymised by the author during transcription and personal data were kept confidential. This was done by assigning a unique alphanumeric code to each participant and storing their data using this code. The contact and demographic information for participants was stored in a separate location. All information which might be used to identify participants or other persons (such as staff, their families or school pupils) was removed from transcripts and replaced with general descriptors as necessary (e.g. <place name>, <child 1>). Publications of research, including journal articles, conference papers and educational materials will not divulge the names or identifying details of participants, non-participants mentioned in interviews, or the schools where participants work.

The following privacy notice was included on the information sheet

Data Protection Notice: The information you provide to the University of Exeter will be used for research purposes and your personal data will be processed in accordance with current data protection legislation and the University's notification lodged at the Information Commissioner's Office. Your personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. Any

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questions or complaints regarding this research or your data should be addressed to: Vivienne Baumfield and Karen Mattick, University of Exeter St Luke's Campus, Heavitree Road, Exeter, EX1 2LU.

The integrity and security of the research data was protected, in accordance with the UK Data Protection Act (1998)⁵⁴⁰, including data stored on computer hard drives, portable computing equipment and flash drives, recording equipment, within emails, on databases, or in printed formats. Data were stored in the following formats and locations.

Audio recordings: These were recorded on audio devices, kept in a locked box between interviews or secured with fingerprint access, and then transferred as soon as possible to secure University online storage in password-protected files to prevent accidental loss of data.

Textual data (transcribed interviews, survey data, analysis of data in NVivo, contact details): These were stored on a password protected laptop and backed up using secure University online storage. Details of participant details, such as names, demographic data and contact details were kept in password-protected files.

Any printed transcripts used during data analysis were stored in a lockable cabinet when not in use, and shredded after use. The raw data, in the form of audio recordings, textual transcriptions and scanned copies of consent forms, will be stored electronically for 7 years, in accordance with research governance policies, and securely destroyed thereafter.

Disclosure and limits to confidentiality

Any decision to over-ride agreements of confidentiality and anonymity would only be taken under advice and with the most serious consideration, in the rare circumstances that not doing so may cause serious harm to participants themselves or others, or that such disclosure be required by UK law. These disclosures would only be made to the appropriate bodies empowered to take action upon this information. These limits to confidentiality were made clear to participants via the study information sheets and consent forms and, should confidentiality need to be broken, individual participants would be informed if safe to do so.

Data re-use

The ESRC⁵⁴¹ expects that researchers will make data available for re-use wherever possible. Therefore, the design of this study included considerations of the long-term use and storage of data. The information sheets and consent forms explicitly informed participants of the potential for their data to be archived, shared and reused by other researchers, and that plans had been made for depositing their data with the UK Data Service. The possibility of 'opting-out' of this part of the research was incorporated into the consent forms, with teachers being informed that this consent was *not* necessary to take part. However, all teacher participants consented to the re-use of their data. The data in their original formats (audio data, as well as personal data such as consent forms) will be destroyed after 7 years.

Declaration of interests

The author knows of no conflicts of interest in undertaking this research. This research project has been supported by a South West Doctoral Training Centre (Economic and Social Research Council) studentship, grant reference number ES/J50015X/1.

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Research outputs

Participants were informed that the purposes of this study were to help further the understanding of interprofessional support in the workplace and the experiences of trainee teachers in their first year of practice, as well as to inform theories of workplace learning and interprofessional support more generally. Therefore, the results of analysis and selected quotes from the data may be published in various formats, such as journals, magazines, conference papers and posters, relating to professional education, teaching, workplace learning and research. They may also be used for educational purposes. Care will be taken to ensure that participants are not identifiable from these publications.

Please see appendix [9.4](#) for copies of the full information sheet and consent form.

4.7 Stages of research and integration of stages

This research project was designed with three sequential stages.

- (1) First, 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.
- (2) Next, the 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) Finally, a cross-professional comparison of the themes arising from the analyses of these two datasets, with a revisiting of the doctor data using findings from the teacher data.

A diagrammatic representation of these stages is shown below, in [Figure 4.1](#).

Given that this multistage project uses both primary and secondary datasets, of different sizes, from differing contexts, some consideration was required as to possible implications of these features of the data for analysis. Furthermore, some reflection upon how the different stages of research might be linked in a coherent and meaningful way. Although there was little to draw upon from current literature specifically looking at combining qualitative primary and secondary data, some of the same issues of integration may apply as relate to 'mixed methods' research more generally. Therefore, an examination of how the primary and secondary data sets in this study would be analysed, separately and in combination, and how each stage of research might influence the next, was made with reference to discussions by Fetters and colleagues⁵⁴² on the integration of quantitative and qualitative data, and by Cronin *et al.*⁵⁴³ on integrating data produced using multiple qualitative methods.

What is integration?

Integration in research is the process of linking different stages of research and/or differing types of data to create a coherent whole, and this can be achieved through various approaches: via the research design, through the interpretation of data, and through the approaches used to report findings^{542,543}. Fetters, Curry and Creswell's (2013)⁵⁴² description of how these linkages can occur is useful here, and they list four strands of how integration may be implemented:

- basing the sampling of new participants on the preceding data analysis (connecting),
- basing the data collection approach on the preceding data analysis (building),
- bringing two or more datasets together for analysis and comparison (merging)
- linking data collection or analysis at multiple points throughout the study, through a combination of the above strategies, connecting, building and merging (embedding)

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In relation to this research study, it could be argued that all four of these strategies have been utilised to some extent, ensuring that the three sequential research stages serve to support and build upon the other, rather than existing as discrete, independent parts.

Connecting

The decision to narrow recruitment of teachers to those working within English secondary schools was derived in part from a desire to make useful comparisons between the two professional groups, that of first-year postgraduate doctors (F1s) and newly-qualified teachers (NQTs). As the medical data were collected from trainee doctors working in UK hospitals, international teachers were not recruited, and the choice of secondary schools as a 'comparable' workplace context was informed by the fact that both secondary schools and medical placements have different departments. Whereas, in primary schools students are, on the whole, taught by one teacher for all subjects within one class and, although subject departments do exist within larger primary schools, this is primarily at an organisational level rather than a physical one. For both medical placements and schools, this compartmentality, and the finding that cultures of learning often varied highly between different departments, was significant to the analysis. Therefore, although the sampling of participants in stage two was not based on the previous analysis, sampling decisions regarding the teacher data were based on features of the participants and workplace environments in the previously existing medical datasets.

Building

Analysis of the teacher data was partially, but not wholly, informed by the findings of analysis from stage one. The analysis of trainee doctor data provided inspiration for some of the interview questions subsequently formulated for stage two, and the provisional model of interprofessional support in medicine,

4.7 Stages of research and integration of stages

developed during the first stage, was also used as a talking point to promote further reflections upon the types of workplace support provided, during teacher interviews. Cronin and colleagues⁵⁴³ referred to the idea of using themes and concepts gained from one analysis and applying it to the next as 'following a thread', and highlighted how research team discussions can help uncover 'resonances' between different datasets. Throughout the analysis of the datasets in this research, notes have been taken during analysis and feedback has been sought from the wider research team, regarding possible links, commonalities and divergences between the teacher and trainee doctor data.

Merging

The three medical datasets previously collected by the research team, which consisted of both narrative interview and narrative audio-diary data, were merged and largely treated as one dataset for the purposes of thematic analysis. The new teacher data, consisting of a combination of narrative interviews and online stories of support, were not merged with the doctor data but explored in a separate analysis, so that the unique factors which these school working environments presented could be uncovered. However, in the final stage of research, the themes arising from each of these two datasets (medical and teaching) were compared in a cross-professional analysis, to explore the extent to which the factors influencing workplace learning and support were similar or different. During analysis of the teacher data, these future cross-professional comparisons were constantly borne in mind, with observations being noted during the familiarisation stage and thereafter, regarding any parallels or dissimilarities.

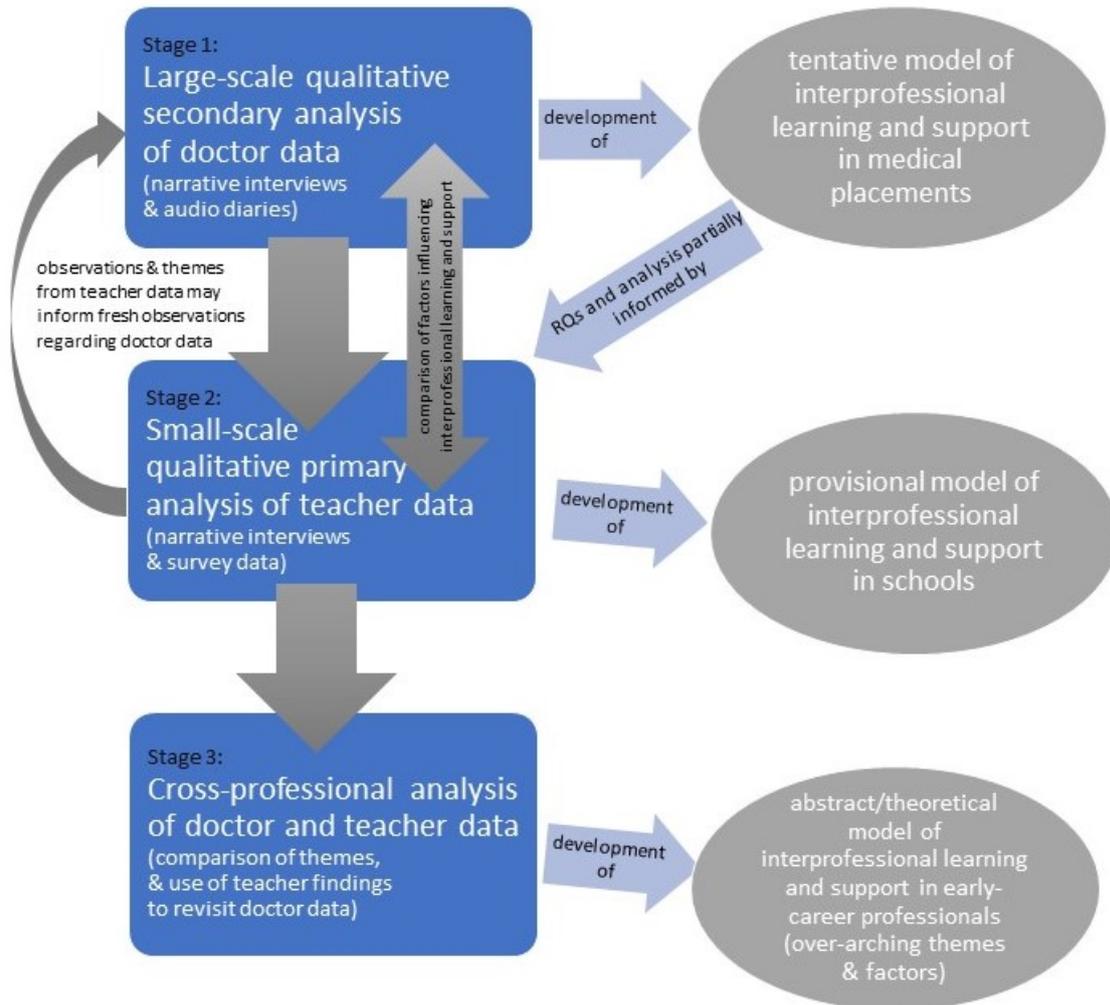
Additionally, the broad over-arching themes which had been identified and defined for the analytical framework for the medical analysis (for example, sociocultural factors, organisational factors, responses to structure) formed the basis of the analytical framework which was created and applied to the teaching

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data. However, there was an appreciation of the tension created by imposing any such structure, between the value of allowing comparisons between teaching and medical contexts, whilst also allowing a free exploration of the new teacher data in a bottom-up way, so as to avoid overlooking any themes which might not fit neatly into this frame. Therefore, only the broadest themes were initially included in the new framework, sub-themes being added more organically as analysis progressed and, as in the previous analysis, the framework was continually open to revisions and adjustment whilst being applied to the data in its entirety.

Cronin *et al.*⁵⁴³ have also suggested that each research method used should be allowed to contribute 'equally' to the findings, with each part of the design being one stage upon a journey. In this research, the aim was that no particular type of data source was given particular priority over another, but all of the diary data and narrative interviews in stage one, and the interviews and survey data in stage two, were coded systematically using the frameworks developed so that no parts of the data were overlooked. Care was taken also that illustrative quotes chosen to represent themes were selected from across all the data source types.

Embedding As can be seen from Figure 4.1, linkages were made during this project between different stages of research, with each stage building upon the one previous. In addition, there was a look 'backwards' to earlier stages, so that new data collected from novice teachers was used to reconsider and shed new light upon the previously analysed trainee doctor data.

Figure 4.1: Stages of research and integration of stages

Interpretation and reporting

Integration can occur, not just at the level of research design, but also during interpretation of data and reporting of findings. Again, Fetter and colleagues⁵⁴² have outlined different ways in which this can be implemented. For this study, the reporting of findings, both in this thesis and future publications, will be implemented using two types of ‘integrated’ approach. First, the findings of the doctor data analysis and the teacher data analysis will be presented using a *staged approach*, that is, in two separate results sections or papers. However, the subsequent cross-professional comparison of the themes identified in both sets of data, and the utilisation of the findings of stage two to ‘look back’ at stage one, will allow the two

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datasets to be *woven together*. This will allow the analysis will be considered and presented as a whole, allowing a more abstract, theoretical consideration of the many factors influencing workplace support during the early stages of professional careers.

Coherence

Coherence is another concept used by Fetters and colleagues, concerning the degree to which the findings of new stages of data collection and analysis cohere or 'conflict' with previous findings. However, given that the data analyses conducted for this research are looking at two different workplace environments, and the qualitative nature of these data, the aim was not necessarily to confirm the findings from stage one. Rather, the aim was to allow a full exploration of the research questions; regarding which professionals and staff provided support, what types of support they provided, the factors influencing this, and professionals' responses to these factors.

The tentative model of interprofessional learning and support developed using medical data was a useful lens through which to view subsequently collected teacher data, and was used as a tool to elicit further conversations regarding support. Similarly, the aims of the subsequent cross-professional analysis was to investigate the extent to which similarities and differences might exist between the interprofessional support of two working environments, rather than to confirm the previously developed model. The findings of stage two were therefore used to expand upon previous findings, with divergences between the two data sets and the two organisational contexts being of interest.

4.8 Data Collection

4.8.1 Stage one: foundation year one trainee doctors (F1s)

Description of existing data sets

The datasets used for this secondary analysis had investigated transitions between medical school and practice, trainee doctor prescribing decisions, and supervised learning events^{387,395,544}. They had been produced using narrative interview and narrative audio diary data collection methods⁴⁶², with trainee doctor participants from four UK hospitals. Only data involving interviews and diaries with first-year postgraduate trainee doctors (F1s) were included, resulting in a total of 61 interviews and 255 audio diaries from 52 participants.

Box 4.8 F1 data set 1

Study title: *A window into the lives of junior doctors: Narrative interviews exploring antimicrobial prescribing experiences*³⁸⁷

Participants and data collection: Narrative interviews with 33 F1 and F2 doctors, at two hospitals in England and Scotland, selected to represent 'typical' UK hospitals. Individuals could opt to take part in group or individual interviews, conducted mostly within medical school environments.

Aims: To explore the antimicrobial experiences of foundation year doctors: what types of experiences they had, how they made sense of them, and what their further educational needs were regarding prescribing.

Funding: Supported financially by BSAC (British Society for Antimicrobial Chemotherapy).

Data analysed: Data were reduced to those obtained from F1 trainees only (10 female, 12 male). These participants took part in 7 individual and 4 group interviews, each group containing 2 to 5 participants.

Box 4.9 F1 data set 2

Study title: *How prepared are UK medical graduates for practice?*³⁹⁵

Participants and data collection: Interviews and longitudinal audio diaries collected at four UK hospital sites (England, Scotland, Ireland and Wales). 185 participants were interviewed from 8 stakeholder groups using narrative interview methods⁴⁶². These included 7 group interviews and 16 individual interviews with 34 F1 trainees. 26 of these F1 trainees (13 male, 13 female) subsequently agreed to also record audio diaries over 4 months. These employed narrative methods as described by Monrouxe (2009)⁴⁷⁴, using a group interview to introduce the study, and asking participants to produce weekly audio recordings of their experiences, with regular 'catch-up' interviews and final exit interview with the researcher (19/26 participants participated in these and were added to the interview data). In total, 18 hours, 9 minutes of audio diary were recorded, comprised of 254 separate entries.

Aims: To understand medical graduates' conceptions of 'preparedness for practice': whether trainees saw themselves as prepared, the effectiveness of transitions from medical school to the workplace, and experiences when trainees felt prepared or unprepared for practice.

Funding: Produced as part of a report commissioned and supported financially by the GMC (General Medical Council).

Data analysed: Data were reduced to that obtained from F1 trainees only.

Box 4.10 F1 data set 3

Study title: *Supervised learning events in the Foundation programme: a UK-wide narrative interview study*⁵⁴⁴

Participants and data collection: 55 individual narrative interviews and 19 focus group narrative interviews, with 70 F1 and F2 junior-doctor trainees and 40 trainers, at 3 sites in England, Scotland and Wales.

Aims: To investigate the experiences of both trainees and trainers, with regard to supervised learning events (SLEs) and workplace-based assessments (WPBAs).

Data analysed: Only narrative interviews from F1 doctors were analysed, not those of trainers, as it was the experiences of trainee doctors which were the main research focus.

Research paradigms

These three original studies all explicitly situated their research within social constructionist paradigms, within which knowledge and meaning is understood to be constructed through social interactions. The theoretical perspective taken was interpretivism, and the choice of narrative methods was informed by the belief that people make sense of their lives through stories.

Recruitment

Recruitment methods for each of these research studies were multiple, and included: emails, e-notices in virtual learning environments, notices on physical notice-boards, leaflets in medical common rooms and libraries, snowballing via training organisations (such as the BMA junior doctor committee, patient groups, deanery communications and 'Meducation' - a social and educational network for medical professionals and students), social networks such as Facebook, and face-to-face social interactions during trainee doctors' medical training events.

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Data collection methods

All three data sets were obtained using narrative data methods, as outlined by Riessman⁴⁶². As stated previously, the aim of narrative methods is to encourage participants to engage in storytelling in order to elicit detailed descriptions of recent, specific events. This, it is hoped, will ground participants' stories in actual experiences, rather than encouraging them to draw upon schemas and stereotypes of what best practice 'might' or 'ought' to be, and to minimise bias during recollection. Therefore much of the data generated by these studies consisted of personalised incident narratives (PIN); that is, chronological stories, with a beginning, middle, and an end, which recounted specific incidents of workplace experience and practice¹⁵⁴. However, it is perhaps inevitable that participants also generate many generalised incident narratives (GIN) - generic versions of events which occur routinely in the workplace, given that human understandings of the world are based upon fitting new information into current patterns of thought and understanding, drawing upon schemas⁵⁴⁵, stereotypes⁵⁴⁶, and shared cultural stories⁴⁶¹ as part of this process. This is necessary so that we can summarise and integrate our knowledge of the world and draw upon 'rough-and-ready' concepts to inform timely decisions and action. People in organisations also discuss past events they have jointly experienced, and events which happen with great regularity, constructing shared understandings of both specific events and particular categories of events^{547,395}.

Interviews and focus groups

At the beginning of the individual interviews and focus groups, participants were first asked questions about the central research aims; for example, "Can you tell me about a memorable supervised learning/antimicrobial prescribing experience?" or "Could you share an event when you were prepared/not prepared for practice?"

‘Can you think of a specific example when X happened to you?’³⁹⁵.

Next, follow-up questions were asked which related to the narratives generated, of the form:

“What happened?”, “Who was involved?”, “Where did it happen?”, “What did you do and why?”, “How did you feel?”, “What was the impact of..?”

with the researchers continuing to ask these type of questions until it was felt that participants were satisfied that they had explored these experiences fully. (Question examples quoted from Rees, Cleland, Dennis, Kelly, Mattick, & Monrouxe, 2014, pp. 3)⁵⁴⁴.

Audio diaries

For the production of audio diaries, participants were asked to record two events per week: one instance when they felt prepared at work and one instance where they felt unprepared for workplace practice.

Transcription

The data collected in these studies were fully transcribed by the previous research teams. The methods of notation varied, with all transcriptions documenting the turn-taking of interviewer and interviewee/s where relevant (audio diaries contained just one speaker), and some but not all including events such as pauses and laughter. In discussion with the original research team, it was decided that access to the original audio files would not be sought. This was because it was felt that the additional work required to maintain participant anonymity and confidentiality, such as editing audio files to remove identifying information, would add to the already substantial time requirements for analysis, whereas the transcripts available were already fully anonymised.

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4.8.2 Stage two: newly qualified secondary school teachers (NQTs)

Recruitment

The recruitment criteria for this study were that participants would be newly-qualified secondary school teachers in their first year of practice (NQTs) or NQT+1s (teachers in their second year of practice), of either gender and any age. The teachers recruited were those currently working in (or who had previously worked) in schools within England only, given the differences in training pathways in other UK regions. The aim was to recruit a maximum of 15 participants, from a variety of subject specialisms.

The study was advertised using recruitment posters and flyers, and these were distributed via Facebook, Twitter, and emails to groups associated with the Graduate School of Education (GSE), such as the [ExPLAIN network](#) (a research community open to educational practitioners, professionals, researchers and the public). Use was also made of links with the teacher training college at GSE, with heads of English and maths sharing the recruitment flyers to past trainees via email and subject-specific Facebook groups. Follow-up emails thanking teachers for their participation also included a recruitment flyer, and participants were invited to share this with NQT colleagues and friends if they so desired. However, it was stressed to all participants, and any teachers they might recommend the study to, that taking part was completely voluntary. No incentives were offered for agreement to take part in the research. However, refreshments were provided at face-to-face interviews, which included biscuits or cake, and hot drinks if conducted on the university site.

Six teachers were recruited during the academic teaching year 2017/18 and five

during the year 2018/19. Of these eleven participants; 3 came via Twitter, 1 via Facebook, 1 through an academic contact who had given a presentation to new teachers, 3 emailed me after the study details had been forwarded to them by educational professionals such as an NQT mentor, and 3 were previous Exeter teacher trainees, contacted by their PGCE subject head. The decision was taken not to recruit directly via schools, as it was felt that senior staff might indirectly put pressure on new teachers, either to take part or not take part. Given the many demands that new teachers already face, it was felt that any disadvantages of recruiting in this way were outweighed by the benefits of allowing teachers to approach the study independently.

Participants

This study recruited eleven secondary school teachers, of whom nine were NQTs, one was an NQT+1 and therefore reflecting back on their NQT year, and one who had not yet completed their NQT year due to support issues but was currently working in cover teaching roles. These participants were primarily recruited from the South West area, for convenience of travel to interview locations. However, three participants were recruited from further afield, in the North West, East Midlands and East of England, with these interviews being conducted via telephone. Of those schools for which location information was available (teachers did not have to disclose schools for telephone interviews) three were in rural areas and seven in urban areas ('urban' including both small towns and larger cities, as defined by EduBase⁵⁴⁸). The majority of these schools were academies (converter or sponsor-led) and one was a community secondary school. School size ranged from 700 pupils up to 1884 pupils (11-18 years).

The demographic features of participants who completed full interviews are shown in Table 4.1.

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Table 4.1: Demographics for teacher interviewees

Gender	
Male	2
Female	9
Age ^c	
Mean	26 years, 1 month
Min	23 years, 1 month
Max	31 years, 6 months
Ethnicity	
White British Or English	10
Asian (other)	1
Training route	
PGCE	7
School-based ^d	4
Education prior to training	
Bachelor's degree	9
Master's degree	2
Subject specialism	
Mathematics	3
English	3
History	2
PE	2
Psychology	1

^cOne age omitted on demographic form

^dTwo SCITT, one Schools Direct & one Teach First

Narrative interviews

Eleven narrative interviews were conducted in total: eight were face-to-face interviews at a location of participants' choosing (teachers opted either to meet at their schools or at the university campus), and three further telephone interviews were conducted for those participants located at a greater distance away. All interviews were carried out between March 2018 and March 2019, during the Spring and Summer academic terms (UK). These timings were partly dependent upon when recruitment calls were successful and when teachers were available to be interviewed. It was also considered beneficial that new teachers be at least one term into their NQT year, to allow sufficient time for them to settle into their new job roles and to accrue a variety of workplace support experiences to talk about.

Interview durations ranged from 40 minutes to 1 hour 15 minutes (mean = 56 minutes), resulting in a total of 10 hours 17 minutes audio footage. Before recording, key points from the information forms sent out previously were re-capped, and time given to answering any questions participants had and for filling out consent and demographic forms (if not completed previous to interviews). The interview questions were influenced by notes made during the previous stage of analysis and centred around experiences of support, learning and feedback in the workplace. That is, any experiences where teachers sought or had been offered support, information, advice, guidance and feedback by other professionals and staff in the workplace, which had assisted them with their professional learning, developing professional skills, negotiating everyday tasks of the job, gaining understanding of the workplace and their role, as well as social and emotional support. Both formal and informal types of support were contrasted and discussed, to provide an overall picture of the support that new teachers received at work. As per the previously described narrative interview

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techniques (Section 4.8), participants were encouraged where possible to recall specific instances that had recently occurred.

Teachers were asked which professionals and other staff they approached or had offered them support during their NQT year, and the variety of support types they received, guided by questions on the interview schedule (appendix 9.5). This list of questions was drawn upon in a flexible manner, not being 'read' directly from the schedule but varying slightly each time to encourage a more natural, conversational interaction. Therefore, though semi-structured, interviews were open-ended, with questions continually adapted both during each interview and from one interview to the next, to further explore themes of interest as they arose. For example, when one teacher quoted social media as an important source of support for them, this was an unanticipated finding, and so was followed up in subsequent interviews to explore whether other teachers has similar or diverging experiences. A list of staff hypothesised as possible sources of teacher support was also used as an additional prompt, with this list added to during each interview as participants mentioned staff not previously specified. The use of prompts and questions was used throughout to encourage participants to elaborate and add detail to their stories.

Examples of interview questions:

- Who are the people who support you at work and what kinds of things do they do?
- Are those people all from within the school or do you ever receive support from professionals or other people visiting the school?
- Just to understand what your working situation is like currently, would you say that you're isolated when you're working in your classroom, or is support readily available when you're teaching?
- Could you tell me about a time when another person offered or gave you support

in the workplace?

- Has there been a time when you felt like you would have liked help with something in the workplace and it was difficult to obtain, or you weren't sure where to go?
- Do you feel as though you're part of a wider team? Who would you include in that team?

In addition to these questions, at a further point in the interview the four broad types of support identified in the medical data were used as a conversation topic, with the hope this would 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. It also emerged during initial interviews that, as well as receiving support from inside the workplace some teachers received informal support from outside the classroom, from sources such as family, friends and social media. This topic of interest was followed up during subsequent interviews, to provide a more complete picture of first-year support for NQTs. Lastly, NQTs were asked at the end of interviews how they might change any existing support processes and whether they had any suggestions for improving support for future NQTs.

Online stories of support

As a supplement to the narrative interviews, a method of eliciting online stories of support was trialled, to allow teachers an alternative way of accessing the research if they did not have time for a full interview. This decision was based on evidence that online data collection is increasingly common, and has benefits such as lower recruitment costs and a wider geographical reach⁵⁴⁹. A survey was designed which asked short versions of the research questions, within SmartSurvey (see appendix 9.6). This survey was shared in various ways, including flyers on Twitter and Facebook, and posts on teacher forums with links to the survey.

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This method only elicited two full responses, one of which was from a teacher who had already completed a full interview (NQT8). In addition, when sharing the survey on an online forum for new teachers, it received one negative reaction from a teacher, who suggested that surveys were not a trustworthy educational research method. The data from this survey were however added to the interview transcripts, both for the sake of completeness and so that the teacher who had taken time to complete the survey but not an interview was given an opportunity to participate.

Transcription

The interviews were all transcribed by the author, using a form of notation which encompassed false starts, pauses, filler words such as ums and ers, and so on. This was not done to the accuracy and specificity of Jefferson transcription⁵⁵⁰, as this level of detail was felt unnecessary for thematic analysis and is very time-consuming to achieve. Rather, the level of detail included was intended to allow the unique voices of participants to be expressed, so that on re-reading the transcripts, it would be easier to recall the tone and style of the original conversations.

The following notations were used:

I: was written before speech by the interviewer

P: was written before speech by the participant

, represented a short pause

[] represented a longer pause (the length of pauses was not accurately measured)

(text) represented words spoken softly or as an 'aside'

[text] represented text which had been changed for reasons of anonymity, or conversations not transcribed, e.g. asides and interruptions to the interview.

(laughing) indicated laughter during speech

(laughter) on a separate line denoted occasions when both interviewer and participant were laughing at the same time

text in italics represented words which had been emphasised by the speaker

the - symbol was used to indicate false starts and changes of direction mid sentence as per the following example

P: and in fact that () sh- the head of- of- of the department

- [] and [text] was also employed during the careful editing of illustrative quotes for the purposes of brevity, such as for instance where utterances were repeated, always with the aim of capturing and preserving participants' original meanings.

4.9 Data Analysis

4.9.1 Overview of data analysis methods

Thematic analysis was carried out on all of the data used in this study, both secondary and primary. This was guided by the principles of framework analysis described by Jane Ritchie and Liz Spencer^{502,503}, which were devised for use in the field of applied policy research and are often employed to investigate professional workplace settings⁵⁵¹. Framework analysis is typically used with data grounded in original participant accounts and may be used to explore a variety of research questions. It can generate data which is descriptive (what exists), explanatory (how and why), evaluative (whether it works) and/or strategic (what changes might be recommended).

These methods are intended to represent a systematic and transparent analytical process, which is explicitly described so that it may be examined, reviewed and evaluated by others⁵⁵². The themes produced may evolve over time due to the iterative and cyclical nature of the analytical process. It is also acknowledged as unavoidable that the interpretative nature of developing and attributing significance to particular themes is subjective⁵⁰². Although themes are identified using data from across the whole data set, and therefore across

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many participants, the charting phase in framework analysis, if used, can allow a consideration of data at the level of individual participants.

Reduction of data sets for secondary analysis

In the three data sets collected by the research team on junior doctors, participants consisted of foundation year one (F1) and foundation year two (F2) trainee doctors and their trainers. However, for this secondary analysis of the data only narratives from F1 trainee doctors were considered, as the experiences of these participants was the main focus of stage one of this research project.

Units of analysis

The main unit of analysis was individual narratives of support. Within participant interviews and diaries there may be many narratives, each of which have a beginning, middle and end, and focus on a particular event or topic. However, a number of different codes and themes were applied to different sections of each narrative, and across the data as a whole.

Trustworthiness

Given that the author was a sole researcher analysing these data, the analytical findings were shared at intervals with the supervisory team, who were also some of the original researchers responsible for collecting the data. This informed collaborative discussions regarding consistency of coding and different possible interpretations of the data during analysis, in terms of codes, themes and conclusions produced.

Stages of framework analysis

- (i) The first stage of framework analysis is *Familiarisation*, which requires that the researcher immerse themselves in the data to obtain a holistic under-

standing of the data set before coding begins. This is necessary because the process of coding inevitably requires one to consider the data in sections and one can lose a sense of the data as a whole. This initial familiarisation process also sets a foundation for the indexing process which follows.

During this stage, transcripts were read and re-read repeatedly, with initial notes made of any observations, thoughts or re-occurring concepts provoked by the data which might suggest potential themes. If the size is manageable, as per the newly-collected teacher data, then this stage of analysis can be carried out with all of the data. However, in the case of the secondary analysis of junior doctor data, due to number of transcripts available a substantial proportion of the data was selected to represent the data as a whole, drawing upon both narrative interviews and audio diaries from all three studies and all four UK data collection sites. This process of reading and re-reading transcripts was then also repeated later with the remainder of the data sets, as a fundamental part of the analytical process.

- (ii) In the second stage of framework analysis, *Index Creation*, a thematic framework or index is formulated using a representative sample of the overall data. In the case of the secondary data, this was the same sample as had been chosen for familiarisation, whereas for the teacher data the whole data were used for framework creation. The framework is created by again reading through each transcript in turn and labelling all extracts which may be relevant to the broad research questions with codes which summarise their content or meaning. Codes can be used to label distinct behaviours, events, activities or practices, or may refer to more abstract concepts such as beliefs, values, and emotions^{553,554}. During the coding process, any thoughts regarding possible themes that particular codes may

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link to can be documented using analytical memos added to those sections of transcript.

Once a data set has been initially coded, these codes are organised into categories or themes. Such themes, constructed by the researcher to further summarise and 'sum up' the data, may be guided by the research questions themselves, participant constructs, or patterns observed in the data such as similarities and differences. There can also be 'process themes' which encompass how language is used to construct meaning, such as emotional 'talk' or the use of metaphor to describe events, feelings and experiences⁵⁰². This process may take many iterations, as codes are modified over time, grouped into sub-themes and then over-arching themes. The notes from the familiarisation stage are also referred to during this stage. Initially, the codes and themes which make up the index may be largely descriptive, as every section of data within a narrative which is judged to be relevant to the research questions is coded. However, as analysis progresses, and these codes are joined together under wider sub-themes and over-arching themes, some of these themes may be more analytical or 'latent', describing underlying concepts perceived in the data⁴⁹⁵.

For the secondary qualitative medical data set, a largely bottom-up, data-driven, inductive strategy was initially used, to develop and identify potential themes and sub-themes during the familiarisation stage. Although it was not possible to claim complete naivety to existing theories of workplace learning and support before coding, extensive reading was not done in this area beforehand with a view to applying particular theories to the data or finding supporting evidence for them. This more 'open' type of coding has the benefit of allowing more flexibility, and therefore the development

of themes which better represent the data, within the constraints of broad research questions. However, at the point at which the index was created, some theory was drawn upon to help structure and make meaningful links between different codes and themes. For example, Cheetham and Chivers' model of professional competence (1998)³⁰⁰ describes and distinguishes between the different skills and capacities which new professionals need to develop. This was useful when considering what it was that new doctors were seeking support with from others during their workplace learning and practice.

The concepts of structure and agency^{434,435} were also employed, after it was noted that individual trainee doctors narrated differing responses to comparable factors in their sociocultural and organisational environments. The themes and sub-themes identified were then put together in an index document, with detailed descriptions created for every code so as to allow consistent application to the data. However, the coding index was not static, and during the indexing process which followed themes were reviewed and updated to reflect new data.

- (iii) The next stage in framework analysis is *Indexing*. For this, the thematic framework created during the previous stage is applied systematically to the entirety of the data.

The first stage of this process for both the doctor and teacher data was a systematic coding of all narratives which made reference to workplace support; that is, all coherent stories in which F1s or NQTs mentioned instances of either seeking or receiving support within the workplace were coded as one specific narrative. Each separate narrative of support was

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labelled with unique alphanumeric codes which showed whether they were generalised incident narratives or personalised incident narratives, and in the case of the medical data - the data collection site and data type (audio diary or interview, individual or group). Subsequently, codes were applied to each of these narratives of support to determine: which other professionals and staff provided support, what types of support were provided, the reasons why trainees sought or required support, and factors described by participants as facilitating or hindering workplace support. This coding was, where possible, done at the level of whole narratives. However, within many narratives of support there was more than one instance of support mentioned as being provided by different people in different parts of the overall story. In these cases, analytical codes were applied to sections of narratives as necessary. See appendix 9.2 for examples of this coding in NVivo

Although the original question of interest was that of support provided by allied health-care and educational professionals, all instances of support being offered or sought including those involving other doctors of various grades or additional sources of support were coded, to provide an overall picture and contextual understanding of support occurring in the workplace. For instance, in some F1 narratives where senior support was described as unavailable for various reasons, medical trainees sought support from other sources. Similarly, NQTs sometimes spoke about gaining support from family and friends, outside agencies or social media, again to perhaps to supplement or fill perceived gaps in provision.

The original intention of coding was to explore informal sources of support, as opposed to formal events or programmes. However, when considering the medical data set collected on the topic of supervised

learning events (SLEs), the lines between formal and informal learning events were sometimes difficult to draw, given that SLEs form part of trainee doctors' formal training assessments. Trainees often told stories about instances of informal workplace learning which were then subsequently turned into formal SLEs, and many were keen to distinguish between what they referred to as 'tick-box exercises' and opportunities for real clinical learning. These narratives were therefore included if judged to include instances of workplace learning which were not simply formal in nature.

With regard to the teaching data, the interview questions about support were worded more broadly and so teachers did mention more formal sources of support within their narratives, such as school-wide behaviour policies and implementation. Again, this helped provided a broader understanding of the contexts in which informal support might be offered or sought; for example, where clear behaviour support was not offered by the school then teachers might require informal support from other staff with this aspect. Therefore, during coding all instances of support were coded as being either formal or informal.

- (iv) In the *Charting* stage of framework analysis, a thematic chart can be created with the main themes as columns and individual participants as rows. A summary of key points expressed by each participant upon that theme is placed in each box, endeavouring to use the language of participants where possible and preserving links to the original material⁵⁰³. A thematic chart is thus created which represents the entirety of the data analysed, producing a summary of data both within cases (individual participants) and across cases. This gives a more holistic overview of the data as a whole, allowing a consideration of which themes are more or less dominant for each

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participant, the extent to which themes represent individual participant's data, and differences and similarities between these individuals. Illustrative passages which represent each theme and individual participant case studies can also be selected, for later publication. For the teacher data, a chart was created to this purpose, illustrating some of the main themes and their importance to each participant (see appendix 9.3).

For the medical data, it was not possible to create a comprehensive chart which represented the data with rows for every individual participant, given the large number of participants involved (52). However, a document was created in Excel which summarised the themes and sub-themes, recorded the number of instances each theme was coded in the narratives, and gathered together a number of quotes to illustrate each of the themes. These were collected from across the data set as a whole, ensuring that quotes were selected from each of the three previous research studies, data collection locations and data types.

A table was also created which illustrated, in numerical form, which staff were providing support and which types of support they were providing. The intended purpose of this exercise was not to carry out a statistical analysis, as a number of other factors might influence the frequency of particular staff or support types being mentioned (for instance, participants' awareness or 'invisibility' of certain types of support, cues provided by the interview questions or interviewer responses), but to provide a summary of general patterns within the data, and provide evidence for those themes⁵⁵⁵. This table was replicated for the teacher data.

(v) *Mapping and Interpretation* is the final process which draws together findings from across all the data as a whole. For this, all research notes and charts are reviewed, so that connections and interactions between important concepts and themes can be discovered, patterns in the data are identified, and tentative explanations for any underlying organisation of data can be formulated. These final themes are then compared and tied in with findings from past literature, meaningful conclusions are drawn, and any specific recommendations for practice are outlined. For these data sets, this stage was tied in with the activity of writing up of findings and formulating tentative models of interprofessional learning and support - within clinical placements, within educational settings, and in professional workplace environments more generally. It was also influenced by the introduction of theory and evolved as an iterative process, with the analysis of new teacher data being used to revisit and refine analysis of the doctor data (see sections 4.9.4 and 7.4). These processes assisted with clarification of the concepts being illustrated, and in selecting and formulating which aspects of the overall data analysis were most significant for medical education, teacher education and workplace practice.

Software

NVivo 11, a dedicated qualitative analysis software, was used to manage the data throughout the analytical process. The advantages of this software include the ability to: import many formats of audio and transcript data, add hierarchical structures of themes and sub themes, add research notes and annotations, and retrace text extracts back to their original position in the data. Coding of themes is done by labelling sections of text with nodes, which may then be joined into over-arching nodes. These can be searched, using queries, to look for instances of these themes on a case-by-case basis (i.e. within individual participant data)

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or the data as a whole.

4.9.2 Stage one: analysis of secondary data from F1s

In this analysis, the familiarisation process was initially begun using data set 1: 'A window into the lives of junior doctors: Narrative interviews exploring antimicrobial prescribing experiences'³⁸⁷, using data from the 22 F1 trainees only (7 individual interviews and 4 group interviews). This data set was chosen to start with, partly because it was one of the smaller data sets available. Also, as the original research question did not address support and feedback explicitly, so less data were predicted to relate to the new research questions, and therefore the proportion of data coded might be smaller. The transcripts were read in the temporal order of recording, to allow systematic processing of the data.

Originally, the intention had been to generate the thematic framework using data set 1 and apply this framework to the rest of the data. However, having been through the familiarisation process and applied initial codes to data set 1, and in beginning to become familiar with the second two data sets, it was not clear that the themes so far identified would adequately capture the variety of the subsequent data sets. Given the slightly differing research questions of each research study and the differing types of data generated (both audio diary and interview data), the decision was made to apply initial codes to both data sets 1 and 2, with these codes and themes being gradually refined using all of the data, so that the final themes identified would be representative of the data as a whole.

Data set 2: 'How prepared are UK medical graduates for practice?'³⁹⁵ was considered in two stages. This data set focuses on transitions from medical training to practice and had been observed by the previous research team to contain much data on support and feedback. As stated previously, the codes

created whilst analysing data set 1 remained dynamic; being reviewed, modified, added to and refined, cyclically, so as to adequately capture the full range of events and experiences evident in the full data set.

First, the narrative interviews (7 group and 16 individual) from the 34 F1 doctors were coded. Secondly, the narrative audio diaries from this second data set (254 diary entries, by 26 F1 trainees) were analysed, again using both existing codes and generating new codes as appropriate. These audio data were considered more complex in nature, which can be an advantage in terms of the richness of data but a disadvantage in that content can be very variable. Hence, these data were reserved for a later stage of the analytical process.

The 3rd data set: 'Supervised learning events in the Foundation programme: a UK-wide narrative interview study⁵⁴⁴ was left until last as it contained data which, though touching on feedback in the workplace, was predicted to be less relevant to the identified research questions than the other two. It was indexed as per the previous two data sets, by applying the existing thematic framework to the data, and updating codes and definitions where necessary.

4.9.3 Stage two: analysis of primary data from NQTs

As per the previous analysis of doctor data (section 4.9), the same stages of Framework analysis were carried out.

- (1) Familiarisation, which in this case was aided by being the person who conducted the original interviews and had access to the audio files after transcription. The process of transcription also formed part of the familiarisation process, as the audio recordings had to be listened to repeatedly in order to transcribe them accurately. During familiarisation, notes were taken on possible themes and possible links with the medical data in readiness for

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the cross-professional comparison.

- (2) Development of themes and sub-themes and creating a description for each of these themes in a coding framework.
- (3) Indexing, the application of this framework to the whole of the data, to each of the interviews in the date order that they had been collected and then the two surveys.
- (4) Charting, exploring how each participant related to each of the major themes identified.
- (5) Mapping and interpretation was the final stage, where themes were reviewed, findings summarised and written up, and links made to previous literature.

4.9.4 Stage three: cross-professional analysis of F1 and NQT data

The purpose of this cross-professional comparison was to elucidate broad common factors which might facilitate or inhibit support in workplace settings, as well as professionals' responses to those factors. Identifying such over-arching patterns aided the formation of a model of workplace support for early-career professionals, in particular those working in 'hot-action' workplace contexts, to assist understanding of how barriers might be addressed within specific workplace contexts.

This cross-professional comparison was not, as envisaged at the beginning of the project, a separate stage of analysis. Rather, it was an activity which began when the interview questions for teacher participants were being composed, based on the analysis conducted during stage one and the resulting findings.

These links between different stages continued throughout the project (see section 4.7), with possible commonalities and divergences between the contrasting participant groups being made note of, directly after teacher interviews, and during the familiarisation, framework creation and coding steps.

The stages of this part of the analysis were conducted as follows

- (1) Mapping the workplaces described in medical and teacher narratives, with regard to the multiple social and organisational groupings they operated within to obtain support. This was done to help set the context for further comparative analyses.
- (2) Comparing the broad themes identified in stage one (section 4.9.2) and stage two (section 4.9.3), to highlight points of similarity and divergence.
- (3) This included a deeper analysis of perceptions of other staff, as identified within the doctor and teacher narratives, using the concept of professional *character tropes*, defined by Monrouxe¹ as 'social stereotypes of groups of people who share similar characteristics, including manners of speaking and types of actions'. Such 'taken-for-granted' knowledge of other professions can affect how novices behaviour towards other staff, and in turn how those staff respond towards them⁵⁵⁶, and it seems likely therefore that stereotypes could exert influence over support seeking and provision in the workplace. This part of the analysis was based upon a more discursive approach to the data, as opposed to the approach taken in thematic analysis where the experiences narrated by participants are more or less accepted 'as is' (see section 4.4.3). It also rested on the assumptions that narrators tend to position themselves and other actors in their stories in particular ways, and that these categorisations can occur at the level of professional groups⁵⁵⁷. This positioning of self and others is not a static end product, but rather an ongoing constructive process which draws upon shared cultural discourses

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and serves particular social goals, whether those be of identity-formation, moral judgement, or persuasive arguments to induce change^{1,464,498}. This aspect of story-telling might be perceived as a limitation of narrative data (see section 4.3.3), but can alternatively be viewed as a window through which to enhance understanding of how professionals are characterised, so that stereotypes and limiting perceptions might be challenged.

- (4) A reflection on how the collection and analysis of teacher data acted as a lens through which to re-examine and pick up new strands in the medical data.
- (5) An overview of the strengths and limitations of different categories of people as sources of support for newly qualified professionals
- (6) Drawing together the previous findings and development of an over-arching model of workplace support for newly-qualified professionals.

4.10 Summary of chapter

In this chapter, first were considered the ontological and epistemological paradigms underlying the work, including personal reflections on possible influences upon analysis and the interpretations drawn. Then, a consideration of narrative methods which utilise 'stories as data', variations within these methods, and their strengths and limitations. Next, an overview of thematic analysis as a whole, as a method for discerning patterns in narrative datasets, and a brief explanation of why Framework analysis was chosen as the particular approach to thematic analysis. Contemplation of trustworthiness and ethical concerns are key in any social sciences research, and these were undertaken in relation to the collection, analysis and publishing of participant data, as well as those specifically relating to revisiting qualitative data for secondary analyses.

After providing this broad methodological context, more specific details were given of the methods used throughout, including data collection, data analysis, stages of research, and integration of these stages. These three interlinked stages consisted of a secondary analysis of medical data from F1 doctor participants, collection and analysis of new data from NQTs, and a comparative analysis of the data from both professions in order to formulate a model of workplace support for newly qualified early-career professionals.

5 Findings of secondary analysis: First-year trainee doctors

5.1 Introduction

A systematic secondary analysis of 61 interviews and 255 audio diaries, from 52 doctor participants in their first year of UK clinical training, was used to explore: which medical professionals and staff were narrated as providing informal inter-professional support and learning within medical placements, what types of support they provided, and the factors inhibiting or facilitating workplace support. In total, 568 narratives were identified (258 GINs and 310 PINs - see Box 5.1), of which 439 talked about instances of support being provided by or sought from healthcare staff, and 129 mentioned general factors influential upon support provision.

Box 5.1 PINs and GINs

Definitions quoted from Monrouxe and colleagues (2015)¹⁵⁴

Personalised incident narratives (PIN): One (or more) participants recounting a specific event that they have personally experienced.

Generalised incident narratives (GIN): One (or more) participants recounting an event that frequently occurs. Rather than describing a specific situation, they provide a generalised story about what typically occurs – e.g. ‘it happens all the time...’

Themes were identified relating to: *which* staff members provided support to trainee doctors and the *types* of support provided, the organisational and socio-cultural *factors* which influenced whether support was provided or sought, and trainee doctors' *responses* to these factors. In the sections below, these findings are illustrated using extracts of participant data. These have been anonymised, but labelled where possible, to show the gender of participants and the data type. Quotes were selected to represent all data collection sites, each of the three original research studies, and a range of participants of both genders.

Box 5.2 Guide to illustrative quotes from F1 participants

The code after each quote, e.g. FT_A_P1 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) or audio diary (A), and a unique reference number to identify each participant quoted (P1, P2, etc.)

5.2 Sources and types of support for F1s

5.2.1 RQ1.1: Who do F1s describe as supporting them informally in the workplace?

Many different staff were described as providing support to new medical trainees on their clinical placements, which may help with transitions from medical school to practice. Registrars were most frequently mentioned within stories of support by first-year doctors, followed by nurses and consultants. Also named within the narratives as providing help were a range of 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. Box 5.3 summarises the sub-themes of people identified as providers of support.

Table 5.1 then gives a numerical summary of these different sources of support and the categories of support that were described by F1 participants as being provided by different people.

Box 5.3 Theme 1: Which people were narrated by F1s as providing workplace support

This descriptive theme lists all people mentioned by first year foundation doctors in their narratives as providing or being approached for workplace support. This theme was coded to the previously identified narratives of support (PINs and GINs).

1.1. *Consultants*

This sub-theme was used to code all references to consultants by F1 (generally tending to work on the same wards), not also described as other specialists (e.g. microbiologist consultants who may work across several wards) or acting as their clinical or educational supervisors.

1.2 *Clinical supervisor and educational supervisors*

Consultants directly responsible for supervising trainee doctors.

1.3 *Registrar*

Doctors who are in the process of completing speciality training to become consultants. Sometimes referred to as STs (speciality trainees).

1.4 *Senior house officer (SHO)*

Senior house officer is an historic term used in previous medical hierarchies. In this data, some F1s still employed this term, and it was not always clear whether they were referring to F2s (second year foundation trainees) or to CT1s and CT2s (trainees who have completed foundation training and are subsequently undertaking two years of core training).

1.5 *Peers (other F1s and F2s)*

Colleagues of approximately the same level of seniority as F1s, in their first or second year of foundation training, working on the same or other wards. Also occasionally referred to as house officers (HO), an historic term for that grade.

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1.6 *Nurses*

Staff responsible for patient care and overseeing groups of patients on a ward. Some nurses have carried out advanced or specialist training to become nurse practitioners, consultant nurses or clinical nurse specialists.

1.7 *Microbiologists*

Microbiologists usually work in laboratories and pathology departments within hospitals, visiting various wards to diagnose and treat bacterial, viral, fungal and parasitic infections.

1.8 *Pharmacists*

Pharmacists are responsible for prescribing and giving advice on the prescription of drugs and medicines.

1.9 *Other medical departments and teams*

This sub-theme encompassed instances where F1s mentioned contacting specialist departments and teams, such as: the acute pain team, cardiology, critical care 'outreach' or medical emergency team, haematology, infectious diseases, intensive therapy or high dependency unit, obstetricians, orthopaedics, palliative care, renal physicians, respiratory team, rheumatology, or surgery.

1.10 *Unnamed seniors*

This sub-theme encompassed references to support from 'seniors', where it was not possible to identify from the narratives whether these were consultants, registrars or other senior staff.

1.11 *Unnamed on-call doctors*

This sub-theme was used to code stories where F1s contacted 'on-call' teams for support during out-of-hours shifts. Such teams may be made up of SHOs, microbiologists, pharmacists and other consultants.

1.12 Allied health-care professionals (HCPs) and healthcare support staff

This sub-theme encompassed references to support from wider teams of staff, including general practitioners (GPs), allied healthcare professionals such as midwives, nutritionists or dieticians, physiotherapists, occupational therapists and social workers, and healthcare support staff such as healthcare assistants (HCAs), ward assistants, hospital porters, and administrators.

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Table 5.1: Sources and types of workplace support provided to F1s.

(Number of episodes of different kinds of support noted in the narratives as being provided by medical professionals and staff)	Total	Learning and feedback:			Information and advice: Clinical	Information and advice: Ward culture	Information and advice: Practical	Social and emotional support	Practical support
		‘On-the-spot learning’	Checking decisions and identifying errors	Progress of learner					
Registrars	113	51	13	10	21	7	1	5	5
Nurses	66	12	2	0	28	6	6	6	6
Consultants	54	23	5	8	8	4	1	4	1
SHOs	41	17	4	1	13	3	1	2	0
Seniors' (unspecified)	35	5	11	2	10	2	0	4	1
Peers / Other F1s & F2s	35	7	2	1	5	6	3	8	3
Microbiologists	26	6	3	0	17	0	0	0	0
Pharmacists	24	2	14	0	8	0	0	0	0
Allied & other*	16	8	0	2	4	0	0	1	1
Other departments & teams	15	3	4	0	6	1	0	1	0
Clinical & Educational supervisors	14	1	0	12	0	0	0	1	0
	439	135	58	36	120	29	12	32	17
Total	439		229			161		32	17

* social worker, physiotherapist, occupational therapist, G.P., dietician, healthcare assistant, midwife, nutritionist, ward assistant, porter.

5.2.2 RQ2.1: What types of support do F1s describe as being provided?

Help with learning and feedback was narrated as the most frequently provided type of support, followed by information and advice, and then social and emotional support (see Table 5.1 for an breakdown of which types of support were provided by which staff). Box 5.4 summarises the sub-themes of support types.

Box 5.4 Theme 2: What types of support were narrated as being provided to F1s

This descriptive theme lists the different kinds of support that F1 participants narrated as seeking or receiving in the workplace from other health professionals and staff, and was coded to previously identified narratives of support.

2.1. Learning and feedback

2.1.1. *'On the spot' learning*

This sub-theme refers to support with clinical learning, via practical and socially interactive forms of learning and teaching which happen 'on-the-spot' whilst on the ward, such as bed-side teaching, patient and case discussions, guidance through practical procedures, 'quizzing', and feedback given while observing practice.

2.1.2. *Checking decisions and identifying errors*

This sub-theme refers to support which involved reviewing the clinical decisions made by F1s, or identifying errors made by F1s and feeding this back to them.

2.1.3. *Progress of learner*

This sub-theme refers to instances of feedback narrated as given by health-care professionals to F1s regarding their general progress and competence at their job, including praise, criticism, discussion and review

of past cases, and advice on improving practice.

2.2. Information and advice

2.2.1. Clinical

This sub-theme referred to support given regarding 'what to do' in particular medical situations. This information was sometimes given directly; for example, telling F1s which antibiotics to prescribe, or indirectly; such as drawing attention to patients whose condition was worsening.

2.2.2. Ward culture 'how things work'

This sub-theme referred to knowledge regarding F1s' roles and responsibilities on a particular ward, signposting which staff to approach for further advice, and local ward-specific procedures, 'rules', protocols and guidelines which might differ from mainstream advice or formal training.

2.2.3. Practical

This sub-theme referred to instances when knowledge was sought or provided regarding practical issues such as where to find equipment, passwords for computers, and so on. This sub-theme was distinguished from 2.2.2. as knowledge of ward culture might be considered *HOW* knowledge ('how it works around here'), whereas knowledge of practical issues is knowledge of *WHAT*.

2.3 Social and emotional support

This sub-theme identifies instances of support which were social or emotional in nature, such as providing reassurance, 'talking things through', making F1s feel 'part of the team', welcomed and valued, or liaising with other people on their behalf, such as patients, families and other staff (brokering).

2.4 Practical support

This referred to instances of support provided by setting up equipment on behalf of F1s, completing small tasks such as doing bloods or cannulation, 'taking over' tasks when F1s were unable to complete them, providing reminders to

F1s that they needed to do tasks, and so on. This type of support may reduce trainee doctors' workload and free them up to do other tasks, as well as adding to a general feeling of 'being supported' and part of the workplace team.

Learning and feedback

This theme identified instances of informal support which helped new doctors with their clinical learning, and included episodes of teaching and feedback which were spontaneous or occurred in response to the immediate demands of a clinical situation.

Learning and feedback: 'On-the-spot' This sub-theme was used to code the many learning episodes narrated as occurring 'on-the-spot', where other professionals provided 'bed-side' teaching, engaged in patient and case discussions, guided them through practical procedures, 'quizzed' trainees, or gave feedback whilst observing their practice. Stories of these practical and socially interactive teaching episodes frequently mentioned immediate seniors, but trainees also described instances of on-the-spot learning from microbiologists, pharmacists, nurses, and other allied professionals such as midwives or social workers. In one audio diary, a trainee described learning about how to care for patients who had nasogastric tubes fitted, from a nutritionist.

mainly my medical role in nutrition which is looking after patients with NGs [nasogastric tubes] 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. FT_A_P1

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Another participant described the value of learning from experienced nurses and physiotherapists when working together.

I really do like working in the team and and learning from one another as well [] it's great to work with nursing staff or physio staff who've had you know many years experience, medical staff who have so many years experience there's much to learn and [] there's no better way than learning than by seeing and asking and, and doing. FT_I_P2

Learning and feedback: Checking decisions and identifying errors This sub-theme coded the many instances where trainee doctors sought confirmation and reassurance from other professionals regarding their clinical decisions, or where other professionals identified errors they had made. Such support was described by participants as helping to reduce errors, increase patient safety, and support clinical learning. In addition to registrars and other immediate seniors, pharmacists and microbiologists were also described as proactive in picking up errors and as valuable guides for trainees wanting to check prescribing decisions, with some trainees noting that these professionals were able to devote 'that extra bit of time' due to differing organisational constraints.

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. FT_G_P3

one of the great things about microbiology here is that they often come round and spot things that people haven't noticed. MT_G_P4

Learning and feedback: Progress of learner This sub-theme was used to code all instances of feedback related as being given to trainee doctors regarding their general progress and job competence, including praise, criticism, reviews of past cases, and advice on improving practice. Unsurprisingly, trainee doctors frequently mentioned clinical and educational supervisors as providers of feedback. However, these senior staff were also sometimes described as busy, difficult to pin down, or as having variable attitudes towards novice doctor learning.

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 when I can..

Interviewer: what would you like to have from him?

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. T_G_P5

Therefore, informal feedback from more junior members of the team such as registrars was also greatly appreciated.

I said to the registrar okay sure do you mind talking through that if I were to do that again what would you have liked me to- 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. MT_I_P6

This was especially true when feedback was deemed to be constructive; that is, detailed, with specific suggestions for improvement, or positive, given a general culture of lack of praise and a tendency to give feedback only when trainees had

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'done something wrong'. At times, this type of support showed overlaps with social and emotional support, when feedback acted as a form of reassurance.

Information and advice

This theme identified all instances where other professionals and staff provided information or advice to new doctors, outside of formal learning events.

Information and advice: Clinical Many narratives of support referred to clinical information and advice given on 'what to do' in particular medical situations. Such support was sometimes given directly; for example, telling trainees which antibiotics to prescribe. At other times, support appeared to be given more indirectly; for instance, where trainees described nurses drawing their attention to clinically relevant symptoms or patients who simply didn't 'look right'. Clinical information and advice was provided by a wide range of sources, depending on the type of advice required, availability of staff, and perceptions of other professions (see section 5.3.1).

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 em to keep them going until the next morning. MT_A_P7

Information and advice: Ward culture and practical Some trainees mentioned getting information and advice on 'ward culture'; regarding their roles and responsibilities on particular wards, signposting which staff to approach for further advice, as well as ward-specific procedures, protocols, guidelines or implicit 'rules' which might differ from mainstream advice. Others referred to information

and advice provided on practical issues such as location of equipment, passwords for computers, and so on. Nurses were again mentioned as useful sources for both of these types of support.

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 they know all them things cos they've been working there for years and they know what it's like when we start MT_G_P8

Social and emotional support

This theme identified support such as providing reassurance, 'talking things through', making trainees feel part of the team, welcomed and valued, as well liaising with patients, families and staff on their behalf (brokering), processes which trainee doctors also observed and learned from. Social and emotional support was most frequently described as provided by peers, with references made to friendship and similarity of status, but was also offered by nurses and by doctors of higher grades.

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 FT_A_P1

Practical support

This theme referred to instances of practical support such as finding or setting up equipment, obtaining forms, completing small tasks such as 'doing bloods' or cannulation, chasing test results, 'taking over' tasks when trainees were unable

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to complete them, and providing reminders. This type of support was sometimes spontaneously offered by others and had the effect of reducing trainee doctors' immediate workloads, and freeing them up to do other tasks. These instances were narrated as most frequently provided by nurses, registrars and immediate peers (other F1s and F2s) with some trainees discussing how they themselves would go and help peers on other wards if their tasks were complete.

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. FT_G_P9

5.3 Factors influencing support for F1s

5.3.1 RQ3.1: Which factors do F1s describe as influencing their workplace support?

In this section are described factors narrated by trainees as influencing the provision or seeking of informal workplace support, and these were divided into the broad, over-arching themes of organisational factors influencing support and sociocultural factors influencing support.

Organisational factors influencing support

This theme identified those factors influencing support which arose from hospital systems and the operations of the working environment, such as staffing, rotas, workloads and job roles. These factors were all described by participants as being influential upon whether senior and other staff were physically available to provide support. Fewer narratives explicitly mentioned staff being readily available, either

on that specific occasion or in general on their ward, compared to the many where staff were described as unavailable.

Box 5.5 Theme 3: Organisational factors narrated as influencing support for F1s

3.1. Staff unavailable

This sub-theme refers to sections of narratives where F1s described a lack of availability of staff in particular wards, departments, placements and jobs.

3.1.1. *Out of hours working*

Instances where out of hours working (weekends, bank holidays, night shifts) and staffing levels during those times were narrated as influencing support.

3.1.2. *Physical unavailability*

Instances where staff were described as physically absent for reasons such as being in theatre or attending to another ward.

3.1.3. *Workload, staffing, shifts and rotas*

Instances where staffing issues and workload were narrated as influencing support. These issues included staff shortages, problems with rotas and high workloads, but were coded together as overlaps were often noted, such as when inadequate management of rota changeovers led to staff shortages, lack of cover for sickness and annual leave led to higher workloads, or rotas for senior staff meant F1s working on their own.

3.1.4. *Staff lack time (general)*

This code captured all other instances where staff were referred to as lacking the time to provide support.

3.1.5. *Unavailability (unspecified)*

This code covered all other instances where F1s spoke about unavailability of staff but did not specify a reason for this in their narrative.

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3.2. Staff available

This sub-theme describes situations narrated by F1s where other staff were readily available and accessible for support.

3.3. F1 lack of time

This sub-theme describes instances where F1s talked about lacking enough time themselves to go and seek support.

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. FT_I_P10

Some trainees talked about being 'on their own' on wards, which at times caused them to feel fearful or concerned for patient safety.

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. FT_A_P11

Out of hours and weekend working were times when many trainees felt most vulnerable and in need of support, but perceived it as least available; for example, during night-shifts when the majority of senior staff had gone home for the day.

you're have to- 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. FT_A_P12

Other reasons given for unavailability were that of staff being physically elsewhere (e.g. in theatre or on another ward), staff that were too busy to help, and the general pressures of high workloads and time. These pressures were set in the

contexts of staff shortages, a lack of sickness cover and badly managed rotas. Some instances were also described where trainees themselves felt they lacked time to seek assistance from others, with the fast pace of the ward meaning they had to prioritise immediate patient care above their long-term learning needs.

Sociocultural factors influencing support

This theme describes factors relating to social interactions between trainees and other professionals, as individuals or groups, and encompassed social relationships, perceptions of other staff, and local learning cultures.

Box 5.6 Theme 4: Sociocultural factors narrated as influencing support for F1s

This theme was further divided into seven sub-themes which related to interprofessional relationships, and four further sub-themes which encompassed aspects of local ward or department cultures.

4.1. Interprofessional relationships. This sub-theme explores

4.1.1. *Perceptions of other professions and understanding roles*

This code refers to instances where F1s talked about their perceptions and understandings of other staff and their roles, and how this influenced support.

4.1.2. *Social relationships and getting to know people*

This code included instances where F1s talked about how getting to know other professionals, forming working relationships or friendships, and developing rapport, influenced the seeking or provision of support in the workplace.

4.1.3. *Knowing who to ask and when*

This code describes instances where trainees spoke about uncertainty regarding who to approach for support in new working environments, un-

Findings of secondary analysis: First-year trainee doctors

derstanding what the roles of other professionals were, and judgements regarding when to seek support from others.

4.1.4. *Communication skills*

This code was used for instances where F1s described how their own interpersonal and job-related communication skills were important to obtaining support.

4.1.5. *Working as a team*

This code captured instances where trainees described how feeling part of a team was a positive influence on support-seeking.

4.1.6. *Interpersonal conflict*

This code captured instances where trainees described how interpersonal conflict presented a barrier to obtaining support.

4.1.7. *Hierarchy, openness and team-working*

This code refers to instances where hierarchical structures were narrated as inhibiting or promoting the seeking or provision of workplace support to F1s.

4.2. Local learning cultures

This sub-theme explores the different approaches and attitudes to learning that F1s talked about experiencing in differing wards, departments, placements and jobs.

4.2.1. *Learning opportunities initiated by others*

This code captured instances where trainees spoke about the (generally positive) value of having learning opportunities initiated by others.

4.2.2. *Positive attitudes towards F1 learning (general)*

This code was used for F1 stories where they talked about differing attitudes towards trainee learning generally, in particular wards or departments, including perceptions of whether they were free to ask questions and pursue learning goals, willingness of staff in those areas to teach,

and learning by doing versus being told what to do.

4.2.3. *Enthusiasm for teaching*

This code was used for those stories where F1s spoke about how different individuals or groups varied in enthusiasm for teaching and how this impacted their learning.

4.2.4. *Quality of feedback*

This code described instances where F1s talked about the importance of receiving feedback and how that impacted their workplace learning, encompassing factors such as whether feedback was constructive and detailed, or brief and vague; positive and encouraging, or negative; and whether it was given immediately or after some delay.

Social relationships: This sub-theme was used to capture instances when social relationships were described by trainees as important to support-seeking. For example, some participants related how making friends with colleagues and building trust made it easier to approach others, including senior staff who might previously have been perceived as intimidating. Others narrated how their own interpersonal and job-related communication skills were important to obtaining support. Trainees noted that as these communication skills improved over time, this improved interprofessional relations and allowed them to obtain information and advice from others more efficiently. Making an effort to be friendly also helped trainees get to know other staff and overcome possible barriers.

I was always told just be nice to everyone you know because you're relying on a lot of people at the start you know and everyone says you know get on the right side of the nurses you don't want to get on the wrong side of them but like if I found you know if you're nice to them they'll be nice to you MT_G_P13

In a number of stories, trainees described how feeling part of a team was a positive influence on support-seeking.

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they were just a lot more understanding which I think um 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 MT_A_P14

However, interpersonal conflict sometimes presented barriers to this team-working and to obtaining support. Trainees also spoke about the uncertainty of knowing who to approach for support at the beginning of 4-month placements, in different wards and medical settings. Whilst some trainees reported being able to gain this information from the other professionals such as nurses and peers, others had to work it out as they went along.

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. FT_G_P15

Trainees additionally struggled with knowing *when* to seek support from others, which involved clinical judgements regarding how sick particular patients were becoming and what their own current capabilities were.

something you gain with experience of just knowing where your limitations as a doctor lie and once you've reached those limitations who to escalate the situation to [] you need to know when you've reached your limit and once you've reached that limit make the appropriate um call the appropriate senior there's absolutely no problems and no shame in calling for help what is embarrassing is when you don't call for help and you get caught out [] as an F1 I would always say if you're unsure let someone else know get someone else to review the patient and just let them put your mind at rest. MT_A_P16

Perceptions, stereotypes and understanding of roles: A further sub-theme was that of how trainee perceptions of other professionals and their roles might influ-

ence the seeking and provision of support. For example, one trainee spoke about finding radiologists difficult to approach to request scans.

a lot of people find radiologists are quite tough to talk to, uhm but to be fair I always think they they do get like quite a lot of stick? and some of them can be really quite mean. But then, they must get like flooded with hundreds of uh 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 I think it's just I think someone probably enjoys watching you trying to explain, it's a strange dynamic [] and then often you have to go down there you request it [] and you sort of say I've got this request and they'll be like ok and then sort of, sort of get you to sort of recite why you want it. uhm so that's quite intimidating at the start. MT_I_P17

Trainees could also be unaware at the beginning of placements what the exact roles of allied health professionals were and talked about how gaining better knowledge of different roles helped collaborative working.

it's a great way see how people have different perspectives [] as a foundation doctor you get to see the patient on a daily basis so you're able to see how they're progressing from day to day, some days if they're not so good other days feeling a bit better then you'd have the dieticians coming in seeing how they are asking and prescribed supplements and similar to the physios as well they're maybe wanting you to prescribe nebulisers things like that so it's great to work within such a good team [] I think even just observing how a team worked helped me then to integrate into part of a team. FT_I_P18

At times, hierarchies were mentioned as creating barriers to support, with some trainees feeling inhibited from asking questions of seniors due to fears of consequences.

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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 MT_G_P19

These perceptions were not consistent within the data, however. For example, some senior staff (including registrars, consultants, pharmacists and microbiologists) were seen as intimidating, patronising, critical, or inaccessible, whereas others were seen as approachable and as good mentors. Such conceptions of other staff appeared to be shaped by personal experiences or the viewpoints expressed by others. However, such perceptions were also described as changeable over time.

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

Additionally, not all trainees grouped professionals together, but distinguished between different wards or individuals.

you know and there was like there was 4 or 5 nurses standing round the station and it was like 11 o'clock in the evening and I was just by myself like I mean I'll go and do the obs but I'd really appreciate if you could help me out, so that was just an example where they were just really rude [] the flip side of it the girls I work with on the medical day unit at [hospital] are just the best people I've ever worked with in my life they're just- I walk in in the morning they're all there like half an

hour earlier than they need to be they've got all the patient notes lined out for you MT_L_P21

and emphasised the importance of 'getting to know' which staff were helpful or not.

you're not going to go to somebody who freaks you out [] you're going to go to somebody that you feel relatively comfortable with [] so I don't personally feel that uncomfortable if- if I don't know something I'll just say I don't know and you know they'll explain it to me. FT_G_P22

An additional analysis was conducted to further explore how different professionals were depicted and described more generally within the narratives, inspired by Monrouxe's work on professional character tropes^{1,558}. The findings of this analysis are presented alongside those derived from the teacher data, in the comparative cross-professional analysis in chapter 7, section 7.3.4.

Local learning cultures: This sub-theme was developed to encompass the high degree of variability that trainees described as existing between different wards and departments, with regard to behaviours and attitudes around learning and support. Some first-year doctors explained these differences according to organisational aspects of working life. For instance, how the need for seniors in surgical wards to frequently be in theatre tended to render them unavailable, or how the slightly slower pace of some wards and GP practices gave seniors more time to provide supervision, on-the-spot learning opportunities and detailed feedback.

it depends as well on the rotation you're on cos I've heard the same thing about other departments really really keen and proactive and you get involved and I think it's no-ones f- [] it just that you know, how the

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department works and how busy they are and what's the what staffings like as well. FT_G_P23

However, sociocultural factors also featured frequently in the narratives. Some staff (as individuals, or as members of particular wards and departments) were described as having very positive attitudes, whereas others taught 'by humiliation', lacked time to answer questions or explain decisions, and tended to issue instructions rather than taking trainees on a learning journey with them through the wards. Given frequent unavailability of staff and feelings of reluctance to 'bother' seniors, trainees expressed their appreciation for those times when learning opportunities were initiated by others.

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. MT_G_P24

Some members of staff were also described in glowing terms regarding their enthusiasm for teaching, being proactive in transmitting knowledge, encouraging critical thinking in trainees, and giving detailed, constructive feedback.

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. T_G_P25

Microbiology I think one of the good things about microbiology well we can't praise them enough really but I think it's generally in most places I mean if you think back to the [name of workplace] all of the microbiologists were really, really enthusiastic.

whenever they are on the wards they always take an opportunity to give a little bit of teaching. MT_G_P4

Trainees talked about the value of getting positive feedback and praise from other staff, so that they knew whether they were 'doing the right thing'.

With your work you just tend to get into the flow of things and [] you'd not be quite sure how much you're contributing having positive feedback [] is a really good thing to hear, it motivates you, it guides you, it gives you a pat on the back and says you're actually doing alright which you lose sometimes when you're working as a junior FT_A_P26

but positive feedback was described by several participants as largely absent, as

most of the feedback we get is when we've done something wrong.

MT_G_P27

5.4 Stories of agency by F1s

5.4.1 RQ4.1: How do F1s describe responding to these factors?

This final theme, 'stories of agency' arose as, what was striking whilst reading through the data was the tenacity of many trainees as they described their efforts to navigate, manage and overcome the social, cultural and organisational constraints of their working environments. They did this by seeking out and initiating learning opportunities, by asking for clarifications and explanations of why particular clinical decisions were made, by seeking support from other members of staff when seniors were not available, by visiting upcoming placements to discover the lay of the land, and so on. At other times, however, F1s described responding to constraints by feeling that they had to take control or make decisions alone.

Some trainees stressed the need to have confidence to seek senior support when needed, whether that be to ask to be supervised during medical procedures not yet mastered, or obtaining clinical advice when feeling 'out of

Findings of secondary analysis: First-year trainee doctors

their depth'. In addition, some trainees reported seeking alternative sources of support when senior advice was not available.

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 that 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. FT_G_P15

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 MT_I_P28

Other F1s described taking time to go and learn about the ward culture and find out practical information before starting new placements, or endeavoured to get to know other professionals and learn about their routines.

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 MT_G_P29

Confidence, and taking the initiative, were also described by some trainee doctors as significant to their learning, feeling it was important to ask questions and for explanations of colleagues' decisions, as well as initiating or 'pushing' for learning experiences and requesting feedback.

I think one thing that I learnt at medical school which is come in really helpful is never to be afraid to ask [] there's no such thing as a stupid

question and I think quite a lot of the time you- you've got to sort of 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 sort of take the mick so to speak but I think you've always got to know when to-, you don't know [] and always ask. MT_G_P6

I instigated it cos [] obviously I wanted to do obstetrics and gynaecology and that was in the GP setting as a midwife comes into a midwife clinic every Wednesday so [] um I was like right so can we do (supervised learning event) I will have feel of the abdomen (laughing) tell you what I think and then you give me some feedback about that yes.

FT_I_P22

Another participant, however, described how achieving the right level of confidence was important when judging whether to make decisions alone or seek further support.

I've got some foundation doctors that who are um very confident and [] you sort of think it's almost verging on the arrogant and at that end you sort of worry about um 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 or [] I just think the doctor sort of lacked the communication and the confidence to escalate the situation as quickly as it needed to be [] didn't act accordingly quick enough with enough authority to say that I need this this and this right [] um and as a result the patient was sick MT_I_P16

Additionally, some trainees described responding to constraints by hesitating to seek senior support, feeling that they had to 'take control', do more learning on

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their own, or make their own decisions at times when senior support was not readily available.

I had nurses kind of shoving drug charts in front of me and asked me to scribe this that and the other and these were medications I wasn't particularly comfortable in prescribing [] my registrar was on the ward looking after a patient who was critically ill on the CCU [Critical Care Unit] at the time so I was expected to know all these doses of medications exactly how to give them when to give them in what order [] so it was just a really highly charged and highly stressful environment [] Um, my learning point from this would be to kind of buckle down and get to know the protocols for the big things that you're going to see regularly [] at the end of the day you've got to be in control MT_A_P21

Trainees also told a number of stories where they expressed ambiguous feelings around getting the right balance of challenge and support in early placements, to achieve learning as well as ensuring patient safety.

nights are very terrifying they're very- they're great learning things and I'm very grateful- kind of learning experiences and I'm so grateful that I get to do nights [] I definitely think I've learnt many more skills and um quick assessment of a patients because in a night you have to [] I think you're driven in a very different way at night you know there is only a couple of you so I think that for me was a really good you know but I wasn't particularly prepared for that. FT_I_P12

you definitely do get pushed into making decisions you're not comfortable with [] and a lot of the time on 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. FT_G_P15

Overall, complex relationships were noted to occur, as intentions of trainees to be proactive were often narrated as dependent on or interacting with surrounding social, cultural and organisational constraints and facilitators, as well as their perceptions of other professionals. For example, trainees described feeling more able to actively pursue learning goals and obtain support when working within supportive learning cultures, or where staff were deemed to be 'approachable'.

I'm really happy to ask questions and have discussions with seniors, erm but if [] they're busy, or if they're not engaging in the discussion, then I'm not happy to [] to pester them anymore. FT_I_P30

and trainees discussed how they attempted to balance the time pressures of service provision against their own learning and development.

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 and finding that time I think is really really difficult. FT_G_P23

5.5 A provisional model of workplace support for

F1s

The model presented in Figure 5.1 was created in order to summarise and demonstrate holistically the wide array of factors narrated as influencing interprofessional learning and support, and the complex ways these factors might interrelate.

5.6 Summary of findings of secondary analysis of

F1 data

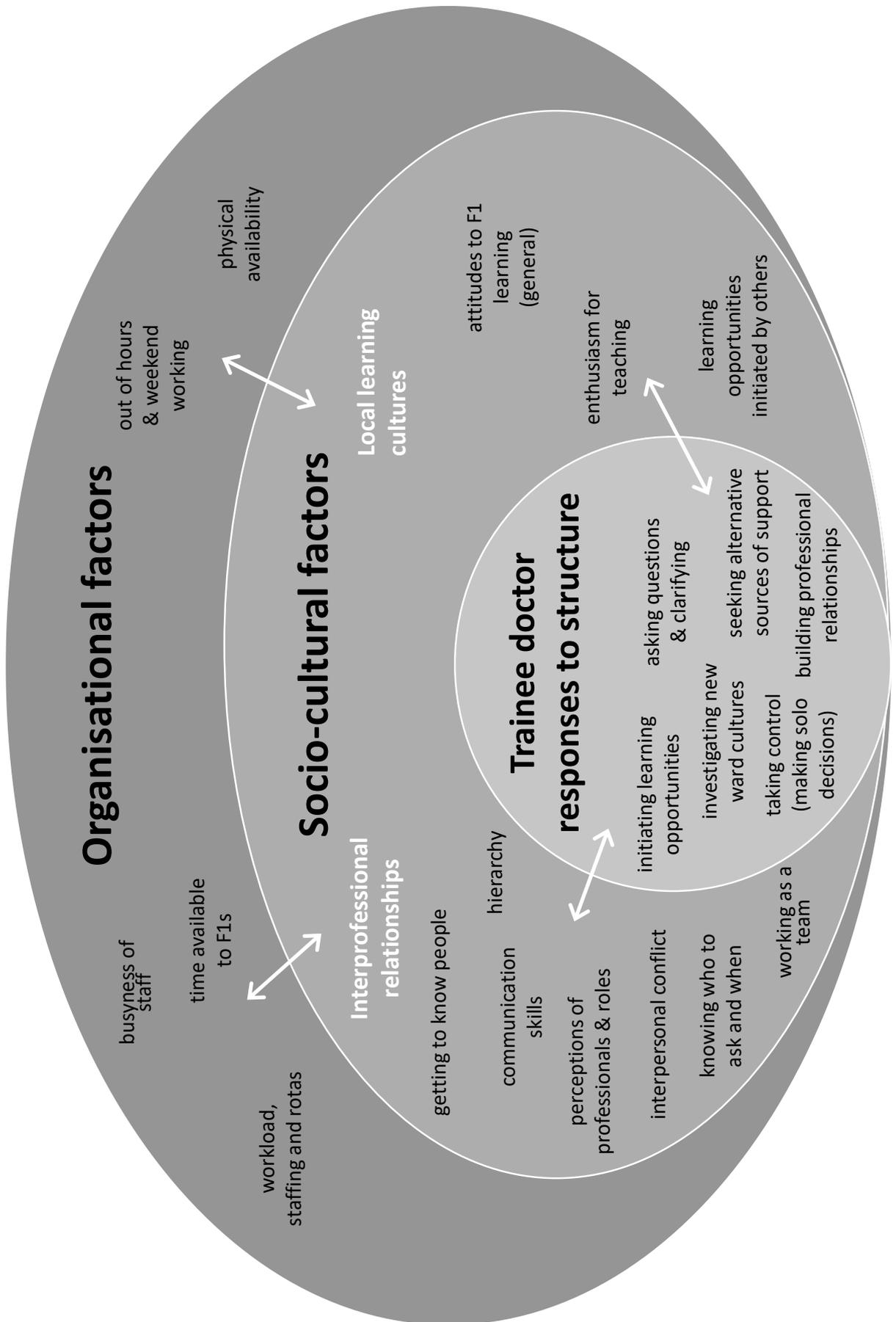
The aims of this chapter were to present findings on *which* professionals and medical staff provided informal workplace support to first-year trainee doctors, *what* types of support were provided or sought, and the *factors* described as facilitating or hindering interprofessional workplace support and learning. It also looked at trainee doctors' *responses* to these factors in their working environments. Of note, was the extent to which pharmacists, microbiologists, nurses, and other allied professionals, were sources of workplace learning and support for trainee doctors, suggesting that interprofessional support may aid transitions from medical school into practice. This support included clinical information, advice, and teaching episodes but also included knowledge of local ward cultures, practical and socioemotional support.

A number of sociocultural and organisational factors influenced the seeking, provision and effectiveness of this support, including unavailability of staff, social relationships, perceptions of other professionals and their roles, and a wide variability in the local cultures of wards and departments. Also of note, were the ways in which some trainees responded to these working environments by taking the lead, asking questions, pushing for support and pursuing their desire to

5.6 Summary of findings of secondary analysis of F1 data

learn. A provisional model of interprofessional workplace support was developed so as to summarise these factors and illustrate how trainee doctor agency and the surrounding sociocultural and organisational environments appear to interact and influence one other.

Figure 5.1: Provisional model of factors influencing workplace support for F1s



6 Findings of primary analysis: Newly-qualified secondary school teachers

6.1 Introduction

An analysis of 11 interviews and two survey responses, from 12 participants who were either currently in their NQT year, or were reflecting back on their NQT experience the previous year, was used to explore: who was narrated as providing informal learning and support (inside and outside of the workplace), what types of support they provided, and any factors which inhibited or facilitated this workplace support. In total, 284 narratives were identified (181 GINs and 103 PINs^{5.1}), of which 264 talked about instances of support being provided by or sought from others, and many of these also mentioned general factors influential upon support provision. This number of narratives about support identified in a small number interviews, compared to those identified in the medical data, likely arose due to the nature of the interview questions in this research phase, which specifically targeted support seeking and provision. Themes were identified relating to: *who* provided support to newly qualified secondary teachers, *what types* of support were provided and *how*. Also, the organisational and sociocultural *factors* which influenced whether support was provided or sought,

Findings of primary analysis: Newly-qualified secondary school teachers

and new teachers' *responses* to these factors, as well as NQT's suggestions for *improvements*.

In the sections below, findings are illustrated using extracts of participant data. These have been anonymised and labelled as shown in box 6.1.

Box 6.1 Guide to illustrative quotes from NQT participants

The code after each quote, e.g. NQT1_F refers to: a unique reference number to identify each participant (NQT1, NQT2, etc.). For the quotes in section 6.2 this is also followed by a code to indicate 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), and unknown (U) ^a. This is followed by the source of this support (e.g. head of department).

^asee Box 6.4 for further explanation of these codes

Quotes were selected from all of the teacher interviews to illustrate themes, in order to preserve the participant voice. A chart was also created which summarises the narrated stories of each of the participants in relation to the broad themes identified, to illustrate the wide variety of experiences that individuals talked about having within their particular departments and secondary schools (see appendix 9.3).

6.2 Sources and types of support for NQTs

6.2.1 RQ1.2: Who do NQTs describe as supporting them in the workplace?

Many different staff were described as providing support to new teachers during their first year, as they made the transition from initial teacher training to practice as an NQT. This mostly consisted of staff within the school itself, including senior leadership teams, middle leaders and other teachers within and outside

6.2 Sources and types of support for NQTs

their main subject departments, and teams of support staff, who specialised in behaviour support, SEN and student wellbeing. Outside sources of support were also mentioned by NQTs e.g. organisations such as unions or staff from initial teacher training bodies, and some direct support was provided by visiting professionals such as a speech and language therapist, educational psychologists, and a mindfulness and wellbeing coach. Wider professional networks of other teachers, either NQTs or those who were more experienced, were accessed through activities such as conferences, training or social media. Finally, some new teachers received support from family and friends.

Identifying staff members who acted as sources of support to NQTs within schools was a more complex task than it had been for medical workplaces, due to the variety of ways in which modern schools are organised and the multiple, overlapping roles which many teachers perform. Academisation in particular seems to have led to the creation of new, specific job titles, and the renaming of traditional educational roles; for example, in one school, heads of department were referred to as teaching and learning leaders (TLLs). In all schools, teachers had two mentors allocated to them, one being a subject mentor (usually from within their department or teaching a very related subject) and one NQT coordinator, advisor or programme lead (usually within the school itself, but occasionally provided by outside providers such as educational agencies employed by the LEA).

Box 6.2 summarises the sub-themes of people identified as providers of support.

Box 6.2 Theme 1: Which people were narrated by NQTs as providing workplace support

This descriptive theme lists all people mentioned by newly qualified teachers in their narratives as providing or being approached for workplace support. This theme was coded to the previously identified narratives of support (PINs and GINs^{5.1}).

1.1 Senior leadership team (SLT)

The senior leadership team, identified as a group or as individuals, including the head teacher or principal, assistant or deputy head teacher or principal, deputy CEO of academy trust, line manager.

1.2 Middle leaders

Heads of departments (also referred to as teaching and learning leaders in these data - TLLs), heads of faculty, heads and assistant heads of year, heads of house or pastoral care, and safeguarding coordinators.^a

1.3 Mentors

NQT subject mentors (usually within the NQT's subject department), NQT advisors, also known as NQT coordinators or programme leads (responsible for all NQTs in the school) and coaches.

1.4 Teaching staff

All other teaching staff narrated as providing support to NQTs, including those within their subject department and in other subject departments within the school, including experienced teachers and other NQTs / NQT+1s.

1.5 SEN, behavioural support and administration

All roles involving supporting students' learning, behaviour in and out of class, special educational needs, administration, or student social and emotional well-being. The names given to these roles vary between schools but in these data included: academic learning mentors, administrators, behavioural and isolation support teams, 'dinner ladies', exams officer, higher level teaching assistants

(HTLAs), *keyworkers*, pastoral staff or mentors, PA (personal assistant) to the head teacher, *special educational needs coordinators* (SENCOs), SEN departments or teams, student support officer, and TAs / study support.

1.6 Professionals and organisations outside school

Professionals visiting the school, including a *speech and language therapist*, *educational psychologist*, and a mindfulness and wellbeing coach. Also, ITT coordinators or SCITT transition mentors from teacher training bodies, a leadership development officer (Teach First programme), school partnerships officer, former PGCE tutor, the Local Authority, and teaching unions.^b

1.7 Wider professional networks of teachers

Previous teacher trainee peers, teachers met at conferences or training sessions, and contacts and information via social media and websites; such as Twitter, Facebook and teacher podcasts.

1.8 Family and friends

Family and friends outside of school, some of whom were also teachers.

^aThe SENCO, head of SEN or SEND coordinator, technically middle (or sometimes senior) leaders, were coded within SEN, behavioural support and admin.

^b Most contact with these professionals was indirect, mediated by SEND teams.

Table 6.1 gives a numerical summary of the different categories of support described by NQT participants as provided by the people listed in Theme 1 (see sections 4.9.1 and 8.5.7).

Findings of primary analysis: Newly-qualified secondary school teachers

Table 6.1: Sources and types of workplace support provided to NQTs.

<i>(Number of episodes of different kinds of support noted in the narratives as being provided by particular professionals, staff and other people)</i>	Total	Information and advice: Teaching & professional development	Information and advice: Specific school context 'how things work'	Professional development: Observations & feedback	Professional development: Interactive collaborative activities	Social & emotional support	Practical support	Student support
Other teaching staff (of which, other NQTs/NQT+1s)	88 (21)	22 (6)	4 (0)	5 (1)	8 (1)	27 (13)	18 (0)	4 (0)
Mentors ¹	49	15	4	19	6	1	3	1
Middle leaders ²	47	16	3	8	3	6	3	8
SEN/behavioural support and admin teams ³	36	19	0	1	0	1	1	14
Senior leadership team (SLT) ⁴ and Head teacher	27	5	3	6	3	0	1	9
Wider teaching professional networks ⁵	25	10	0	0	3	3	9	0
Professionals and organisations outside school ⁶	16	3	1	6	1	4	1	0
Family and friends	4	2	0	0	0	3	0	0
Total	292	92	15	26	23	45	36	36

107

49

¹ NQT subject mentors, NQT advisors, coach ² heads and deputy heads of department, faculty, year, house ³ e.g. administrators, behaviour support, dinner ladies, exams officer, TAs, SEN teams
⁴ assistant or deputy head, CEOs, line managers ⁵ e.g. past trainee peers, teachers at conferences or via social media ⁶ e.g. speech and language, educational psychologist, mindfulness coach, union, IIT coordinator

6.2.2 RQ2.2a: What types of support do NQTs describe as being provided?

Information and advice (on teaching or the school context) was the most frequently narrated type of support, followed by support with professional development (observations and feedback, and interactive collaborative activities), social and emotional support, practical support (particularly the sharing of resources), and student support (which indirectly supported NQTs). See Table 6.1 for a breakdown of which types of support were provided by which staff. Box 6.3 summarises the sub-themes of support types.

Box 6.3 Theme 2: What types of support were narrated as being provided to NQTs

This descriptive theme lists the different kinds of workplace support that NQT participants narrated as seeking or receiving from others. This theme was coded to the previously identified narratives of support (PINs and GINs^{5.1}).

2.1. Information and advice

a) 2.1.1. *Teaching and professional development*

Information and advice relating to the teaching role itself, including general advice on teaching methods, subject or course-specific knowledge, inspiration and ideas, marking, lesson planning and schemes of work, differentiation, student behaviour, curriculum changes, finding resources, specific students, communication skills, NQT paperwork, SEN topics, safeguarding, and training or professional development opportunities.

b) 2.1.2. *School culture 'how things work'*

Information and advice on whole school values, policies and procedures such as behaviour systems, expectations of new teachers, local information on administrative procedures, computer systems and data collection.

2.2. Professional development

a) 2.2.1. Observations and feedback

All instances of classroom observations, feedback on those observations, and general feedback on progress and development as a teacher, including reflective discussions and advice on how to improve, and praise.^c

b) 2.2.2. Interactive, collaborative activities

Interactive and collaborative activities which supported teachers to develop their teaching skills, going beyond provision of information and advice to involve demonstration, discussion or co-production. This included sharing examples of students' marked work, moderating, jointly planning or scripting lessons, reflective discussions about how to approach particular problems, creating scaffolded opportunities for autonomy and responsibility, and demonstrating classroom management.

2.3 Social and emotional support

Instances of social and emotional support, such as providing a space in which to share experiences and vent feelings, being friendly, offering reassurance, reframing unrealistic expectations and modelling vulnerability, suggesting mindfulness strategies to deal with stressful work situations.

2.4 Practical support

This mostly encompassed instances of teachers sharing resources, but also included offers to teach the NQT's class, transport, practical tasks such as photocopying, advocating on their behalf regarding employment issues, and time and lesson cover for CPD activities.

2.5 Student support

Instances of support provided directly to students, which in turn supported NQTs with their teaching role. For example, managing student behaviour, facilitating restorative conversations, supporting students with specific learning needs, social and emotional issues.

^cObservations could be part of formal support and assessment processes for NQTs, or informal and sometimes spontaneous.

Information and advice: Teaching

This sub-theme referred to information and advice relating to the teaching role itself. This type of support was provided by a variety of people, with the majority being provided by other teachers within NQTs' departments, including their heads of department and NQT subject mentors, experienced teachers, other NQTs and NQT+1s. However, this type of information and advice was also described as provided by and sought from other departments, SEN, behavioural support and admin teams, and teachers outside of the school via wider professional networks (such as those accessed via social media platforms).

NQTs described receiving advice on teaching methods generally, as well as subject or course-specific knowledge such as how to understand and teach particular topics in their area.

Erm she went through a few ideas with me as well, about how to approach different things which I'd not heard of before [] so the first a-like kind of lesson with year eight was Get stuck, and it's like w- well what- what's that? and it was just about building resilience and kind of giving them a problem and then [] letting them get stuck [] and thinking, if you're in a lesson and you're stuck there is a solution, these are the steps you need to go through, but I'd not come across that before.

NQT10_F_Head of department

Two of the female erm, teachers that we have in the department are both, very strong with their dance and gymnastics so, I sorta just picked their brains with regards to, the content and the teaching points as well

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[] 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 cos we have y'know various girls, that dance out of school and, have been dancing for years, so for me as a teacher to try and, get them better what I found quite challenging, but getting teaching points [] has definitely helped NQT2_C_Subject mentor

NQTs got inspiration and ideas from others.

We've [] got someone that used to be a primary school teacher in our department [] a lot of the time I find it most difficult to teach the really low level, like if I've broken something down, into such small bits that I don't know how to break them down even smaller, and you're still not understanding, where do I go from here and it's really useful having him being able to, kind of talk about what they do at primary school [] having him in the department's a real help in that sense, cos you can just, inspire you with different methods and, more visual things and manipulatives and that sort of thing, which, to be honest as a secondary school teacher you'd, never think of NQT11_I_Other teacher(same department)

Some staff, primarily those from behaviour support, SEN and pastoral teams, shared information about specific students and gave advice on how best to manage their behaviour or support their learning, including differentiation.

In particular, support staff because, the tutor group I have there is a, high number of err special needs children with significant needs, so, I'm always y'know talking to the support staff and they're always in touch, which is really good because then we end up sharing information about, y'know other children that I- we- I teach which is really use-

ful to know, and [] and they are really supportive as well they're- they're amazing so that's been really useful NQT6_O_Support staff(unspecified)

NQTs also received general advice on managing student behaviour and on SEN topics such as autism, advice on marking, planning lessons and schemes of work, changes to the curriculum, where to find resources, completing NQT paperwork, safeguarding, communication skills (e.g. how to talk to parents), and information about training or professional development opportunities.

Information and advice: School context

This sub-theme referred to information and advice given which related to the specific context of the NQT's current school, including knowledge of school values, policies and procedures such as behaviour systems, expectations of new teachers (including the multiple roles NQTs were asked to perform, e.g. as pastoral tutors), as well as local information on administrative procedures, computer systems and data collection. This type of support was generally provided by a mixture of other teachers, including SLT, middle leaders, mentors and others teaching staff.

It could be more whole school, erm sort of values or [] procedures, cos of one thing I've found sort of this year erm being needs teaching 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 instance how you, log a child so, for example, erm, if I've sort of er sanctioned a ch- child it's how you follow it up whether you have to make a phone call home and, really how you log it on the system, so it just I find that really useful, erm, with him, with my NQT mentor, just cos he can talk you through the process and make sure you're doing it by the book NQT2_F_Subject mentor

This type of information was mostly communicated via formal support systems, such as initial inductions to the school and regular NQT meetings, but NQTs also asked questions or picked it up from others as they went along.

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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 ha- the longer that you do it, stuff like, inputting data and school systems and [] all that kind of stuff is- is kind of where, we rely on, y'know the more experienced members of our department really and, how to input data

NQT7_U_Other teacher(same department)

Professional development: Observations and feedback

This sub-theme was used to code stories about classroom observations with feedback, and general feedback on NQTs' progress and development as teachers, including reflective discussions with others, advice on how to improve and praise. The majority of observations formed part of NQTs' formal support and assessment processes, and were therefore provided by members of the senior leadership team, heads of department, NQT subject mentors and coordinators. NQTs talked about how receiving feedback from mentors both within and outside their departments could provide two different perspectives with which to view their teaching.

Yeah, so she's another member of the English staff, so when, sh- when I'm teaching she is able to pick apart like how well she feels it fits in the curriculum or how she feels the like journey of the lesson went in terms of helping them to understand the specific concept, whereas, our ITT [Initial Teacher Training] coordinator doesn't have quite the same subject knowledge to be able to do that, so her's are more like behaviour focused, or looking at, the marking that's in their books whether she as an outside observer who doesn't understand, the nuances of what we're teaching is still able to understand, the feedback that's been given to the children. NQT3_F_Subject mentor and IIT coordinator

One participant described how having regular mentoring meetings with a 'coach' from outside of their subject department, helped encourage regular reflection.

They've taken one hour of teaching of every teacher's timetable, including the NQTs that already have a reduced timetable, and that is set aside for you to meet your coach to go on learning walks around the school [] I've been very lucky to have a really good coach this year as well who, of course provides that extra wall to bounce off and she's not from inside maths she's actually- [] was an English teacher, so she's got an entirely different perspective. [] that's nice I think to er have these moments in the calendar where you- you're forced to reflect on what's going on, because I think, if you just let it go week-by-week-by-week it- it can be really easy not to think about these things and, just focus on getting lessons planned instead. NQT11_F_Coach

Other instances of feedback were more informal and sometimes spontaneous in nature, occurring outside of pre-arranged meetings or observations, and did not encompass assessment.

It's probably more informal, erm, where 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 and we have talks, about that erm, we do- we do have time for a formal meeting every week, but equally, if we don't, if we don't really have anything to talk about then, we just go and get on with, whatever is more pressing, it's quite flexible, we do have the- the, designated time but equally it's [] y'know, but more free-flowing than that NQT6_F_Subject mentor

Two participants talked about how other teachers in their department would take turns observing each others' lessons and giving feedback, including other NQTs.

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I also had the other NQT come and observe me, because she wanted to observe [] me teaching as an NQT, and, 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, erm kind of, linking it to everything

NQT10_I_Other NQTs

Another talked about receiving feedback from a teaching assistant.

Now because I didn't get much, feedback anyway, I've had like ten observations throughout the year, erm, it- 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- that is invaluable having that kind of constant feedback was really good

NQT4_I_Teaching assistant

Professional development: Interactive collaborative activities

This sub-theme referred to interactive, collaborative or hands-on instances of support, going beyond provision of information and advice to demonstrate, discuss and co-produce, supporting teachers to develop their teaching skills. This included sharing examples of students' marked work and moderating work together, jointly planning or scripting lessons, having reflective discussion with NQTs on how they might approach particular problems, as well as creating scaffolded opportunities for autonomy and responsibility, or demonstrating the best ways of managing a challenging class. This type of support was mainly provided by other teaching staff in the school, such as NQTs' subject mentors, heads of department, and other teachers within their department.

In English in particular, it's ermm she would show me, her, examples of her, of what she's done, examples of- of the students' work, and

the different, different stages, so you could have the really low ability ones, middle and then top, and what's expected [and] there's just so much marking. But, I was marking for everything, and then sh- she actually would come up say look [] focus on this and this [] which you think, afterwards you think, oh god yeah of course, I'm spending such a long time, on this one piece of work, so really [] I could gloss over certain things but focus on a particular bit for this particular student

NQT1_O_Subject mentor (also SLT)

However, this type of support was also occasionally narrated as provided by people outside of the school, for instance one NQT who had been unable to find help with teaching A-level English within their school, did find support with planning their lessons from another teacher on Twitter.

I contacted, someone who I've seen put loads of amazing PowerPoints up, that she teaches her A-level language class, and 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

NQT3_N_Wider teaching networks

Social and emotional support

This sub-theme referred to all narrated instances of social and emotional support. Social and emotional support was mostly provided by other teachers in their department, including their subject mentors and heads of department. Around a third of those stories talked about receiving support from other NQTs or NQT+1.

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,

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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

NQT3_N_Other NQTs

One NQT also had access to a mindfulness coach, who talked through events that had occurred in the workplace and suggested specific strategies to deal with similar situations in the future. Some participants mentioned social and emotional support from people outside of school, such as family and friends, some of which were themselves teachers. Another participant talked about social and emotional support provided by their union.

And also erm, unions whoever they belong to erm, are very er- I found them really helpful, that's right and there's actually that [] mental space- psychological, erm pastoral care for us as it is [] They provide that, and it's cos you're paying a premium, it's free, so you get like six sessions for free, talk to someone about [what's happening] yeah I didn't know that [] until afterwards [] but it's really I think it's really important for newly-qualified teachers to actually belong to, the union, cos there's- there's actually so much that they have actually- there's quite a benefits there, for them NQT1_U_Union

Participants talked about being able to have a moan, vent feelings, and share experiences after a difficult day. Other staff might also be supportive by being friendly, or offering reassurance.

Practical support

This sub-theme was used to code instances of practical support. Stories of practical support mostly encompassed instances where teachers directly shared resources with NQTs such as worksheets, lesson plans or presentations, but also included examples of other staff offering to teach the NQT's class to give

them a break, or offering transport. One NQT sought support with following up issues with hours and pay (advocacy). Another talked about how being allowed time out of school and having their lessons covered so that they could attend a training event was a source of support. One NQT related how a specialist administrator was allocated to their department to do practical tasks such as photocopying, ordering supplies, creating displays or washing up, reducing the teachers' workload. Finally, there were instances where senior staff allowed NQTs time off for emotional reasons, for instance, sending them home early after distressing events, which might also be regarded as a type of emotional support.

Around half of these stories involved teachers and staff from within their department.

Y'know the rest of the department as well I find, they- you- quite often if I send an email out and say [] I don't know what I'm gonna teach for this part of [name of book], then have you got any resources you get like ten emails back from people saying yep use this or you can do this and da da dah, which is really good NQT6_N_Teachers in same department

However, again, teachers drew upon wider networks of teachers to find resources; in one instance through a Facebook group of past peers from their ITT group, and in another through educational networks on Twitter.

Participant: There was an idea that I saw recently on Twitter which was from erm, a geography teacher erm about top trumps you know the card game, and so she made this resource for her geography class [] so erm using that- that kind of idea that of- of another, another game if you like and, and implementing that and changing that so it's, y'know a key resource and you're talking about, erm [] y'know different athletes and, the attributes that they have y'know how fast they can run or

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how high they can jump and- and stuff like that, I just think things like that that you get off Twitter or y'know from see- speaking to another teacher, those kind of ideas they're just gold dust I think

Interviewer: Did you spend ages making some trump cards then for PE?

Participant: Er no I just- I just got her to send me hers and just changed er the words NQT7_N_Wider teaching networks (via Twitter)

Student support

This sub-theme referred to stories about other members of staff providing direct support to students, which in turn supported NQTs with their teaching role. For example, managing student behaviour in the classroom, or removing students from class so that lessons could continue, supporting students with specific learning needs, or supporting students with social and emotional issues (e.g. friendship issues, anxiety, trauma, difficulties with social skills). This type of support was most frequently provided by specialist SEN, behaviour, isolation teams, pastoral support staff (including keyworkers and safe-guarding coordinators), and in-class teaching assistants.

Another example would be I have er a student with ADHD in my lessons, and he er was getting no work done [] he was constantly calling out and I'd gone above and beyond with the lev- number of warnings that I'd given him, so he went off to isolation and, the SEND team came to see me, erm afterwards, erm later that day we discussed y'know his needs and it was directly with the SEND team and they talked about some of the things that make him tick and what I could maybe say in the restorative conversations so [] I was able to discuss, all these things kinda that I'd already talked with the SEND team about, and that was really useful to have their input NQT11_O_Isolation and SEND teams

Members of the senior leadership team tended to assist with behavioural support, and middle leaders also gave support with student behaviour and student social and emotional wellbeing.

So erm, 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, erm and if they have issues, so quite a lot of my year elevens have anxiety problems [] so they have exit cards so they can go and see her [] and she also will help with taking the workload off me, so recently I had a big friendship issue in my form group but I didn't have to do anything to do with it, because I was just able to report it through to her, and they went to her for kind of like, friendship counselling I don't know exactly what you call it but, like circle time with her during a break-time [] 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 like, follow-up afterwards once things are more sorted out or there's a clearer situation [] that- 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 NQT3_F_Head of house

Also mentioned was support by 'dinner ladies' and an attendance officer in being 'an extra pair of eyes and ears' for gathering information on children's wellbeing; for instance, spotting patterns in school absence or children who might have stopped eating.

6.2.3 RQ2.2b: How is support described as being offered to or sought by NQTs?

Distinctions between formal and informal support were not explicitly addressed by the interview questions, leaving it open for participants themselves to identify what they considered support. During analysis, instances of support were then coded to show whether they formed part of regular, formal procedures or were more informal in nature, as well as whether they were offered by others, or NQTs themselves sought support. The coding categories for this theme were as follows

Box 6.4 Theme 3: How support was offered to or sought by NQTs

- **Formal:** This sub-theme captures instances of support mentioned by teacher participants as being part of their formal support structures and systems in school; e.g. regular meetings with mentors, induction programmes, behaviour systems or regular support from TAs.
- **Initiated by other members of staff:** This sub-theme codes specific types of support described as being offered or initiated by other members of staff.
- **'Checking in':** This sub-theme codes support described as offered informally by the other member of staff who 'checked in' on NQTs, with general questions about how they were doing or if they needed help.
- **Informal:** This sub-theme encompasses informal types of support, described as not initiated by either the NQT themselves or other members of staff, but arising in a more organic, reciprocal fashion during everyday interactions such as group discussions over lunch.
- **NQT initiated:** This sub-theme codes instances where NQTs described initiating or seeking support from another member of staff over a specific issue.
- **Unknown or unclear:** This sub-theme was used to code instances of support where the mode of offering or seeking support was unmentioned or unclear.

A summary of this coding is displayed in Table 6.2.

Table 6.2: How support was offered to or sought by NQTs

NQT Initiated	88
Formal (systems, regular, planned)	82
Informal	53
Initiated by other member of staff	34
Unknown or unclear	27
Checking in	11

Note: This additional coding step was not done for the medical data, as the ways in which F1s sought or received support were frequently unstated in those narratives.

6.3 Factors influencing support for NQTs

6.3.1 RQ3.2a: Which factors do NQTs describe as influencing their workplace support?

In this section are described factors narrated by trainees as helping or hindering the provision or seeking of professional support for newly qualified teachers, and these were broadly divided into three themes, those of material, organisational and sociocultural factors.

Material

Material factors were defined as those relating to physical aspects of the workplace, such as the size of school and departments, the physical spaces they occupied, the specific spaces used by NQTs for their particular teaching roles, and the resources available to them.

Box 6.5 Theme 4: Material factors narrated as influencing support for NQTs

Material factors were defined as those relating to physical aspects of the workplace (whole schools or departments), such as size, layout, and spaces available for carrying out teaching roles. These were organised into three sub-themes.

4.1. Size of school or departments

The size of departments may be affected by the overall size of the school, with some small schools (e.g. those in rural and coastal areas) having departments comprised of one or two people. They may also depend upon the subject (e.g. all students learn maths and English so these departments are usually bigger). This sub-theme was used to code all instances where the size of the school or departments was narrated as influential upon support.

4.2. Physical layout of school and departments

This sub-theme was used to code all instances where physical layout and design; for instance, physical closeness of other classrooms, departments and teaching areas (e.g. outdoor P.E. spaces), provision of shared office space or break facilities, etc. were narrated as influencing support.

4.3. Department resources

This sub-theme was used to code all instances where participants talked about availability of shared department resources, where this affected teachers' need for additional support in creating or sourcing resources; for example, in shared folders on computers, online subscriptions, in filing cabinets, physical resources in cupboards.

Almost all teacher participants mentioned how the layout of the school, departments and other teaching areas (e.g. outdoor P.E. spaces) influenced whether they had access to support and impacted upon the opportunities they had to meet other staff. For example, having access to shared office spaces and staff rooms, there being other department teaching staff or members of the senior leadership located in classrooms or offices close by, or being visible via other means (e.g. transparent doors).

I've got the old head of department in the classroom next to me so I pop round ask her any questions if I'm ever stuck on anything cos she's right next door to me so she's always available [] and she quite often teaches with her door open so she can hear if there are issues in the corridor, and erm will, and kind of poke her head out and see what's going on (laughs) NQT10

One participant talked about how they felt this was a conscious strategy to support new members of the department

I think the nature of erm, the department in- 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

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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 in terms of kind of, getting through to things again, people tend to pop in so I don't really feel like I'm on my own NQT4

but also reflected upon how moving to a new school site meant that interactions between departments had become more limited.

Yeah and I think erm, being in the new school where everyone has their own rooms and all the departments are kind of separated out you don't see the same teachers like err before we were in a tower block so you kind of bump into everyone going around stair anyway, and, since having my own room and kind of, s- solely in the maths department I just see anyone outside of it anymore NQT4

Another talked about how physical divisions between two sections of the school, who had different organisational routines, made it difficult to visit another teacher for advice.

I nee- really need some human to sit down and be there like- this is what it should look like this is what you are teaching them, but because of us being on disparate sites, it becomes quite tricky, and because erm as part of the school day we have split lunches and things I'm never on lunch at the same time she is, so it's not even like I can go could go over and see her during lunchtime [] it still is tricky when I need, just some help from someone who's more experienced, cos we're the only ones who teach [name of course] erm it's a really small course s-so there are just two of us who teach it, so in that sense, it's frustrating when I can't get help NQT3

Availability of department resources was also mentioned by some participants as a helpful source of support, whether that be in shared computer folders online subscriptions, in filing cabinets, or physical resources in cupboards, as this affected the extent to which they needed to create or find resources for their lessons. A couple of participants expressed the feeling that being in large departments was helpful in terms of support, because this gave them access to different 'and pools of knowledge'^{NQT11}, and a better variety of resources.

Organisational

Organisational factors tend to be specific to workplaces as a whole (in this case, individual schools) but may also vary between organisational sub-divisions such as departments. This theme included availability of mentors and senior staff, whole school systems, induction procedures, staffing and team composition, training and social events organised by the school or allied organisations, time allowed out of school for CPD activities and the training route which NQTs had pursued.

Box 6.6 Theme 5: Organisational factors narrated as influencing support for NQTs

Organisational factors were defined as those which arose from systems and operations of the working environment, either at the level of the whole school or as part of the operations of specific departments and faculties. These were further organised into seven sub-themes.

5.1. Availability of mentors and senior staff

This sub-theme was used to code instances where participants talked about availability and accessibility of mentors and senior staff; for example, whether regular meetings occurred, and whether mentors were readily available to chat informally, or only during those formal meeting times. This availability may in turn be affected by organisational factors such as mentors performing multiple

roles (see composition of teams, below), sociocultural factors such as whether departments spent time together during lunch and break times, and material factors such as the physical layout of departments within the school (e.g. if senior leadership teams resided in separate offices).

5.2. Whole school systems

This sub-theme coded those instances where participants talked about how school systems such as behavioural policies, on-call systems, 'open-door' policies, and pupil 'passports' for SEN students had overall supportive effects for them as NQTs.

5.3. Induction procedures

This sub-theme was used to code stories relating to school induction procedures for NQTs and new staff, as the extent and appropriateness of these appeared to have impact on the degree of support required by NQTs to become accustomed to school procedures, roles, expectations, etc.

5.4. Staffing and composition of teams

This sub-theme captured instances where participants talked about how staffing and the composition of their departmental teams influenced support; for example, whether they were comprised of long-serving teachers, more recently qualified teachers, or a mixture of the two. Also, whether mentors performed multiple roles (e.g. as members of SLT), thereby affecting availability or creating conflicts of interest, and stories about high staff turnover or stable teams.

5.5. Training and social events organised by the school, academy or local authority

This sub-theme was used to code instances where training or social events provided opportunities for NQTs to directly access support, or to build professional networks which facilitated support seeking and provision in the future.

5.6. Time allowed for CPD activities

This sub-theme was used to code instance where teachers talked about being

allowed time out of school or their teaching timetables, with lesson cover, so that they could participate in CPD activities such as training courses, observing other staff teach, etc.

5.7. Training route

This sub-theme was used to code instance where teachers talked about how the particular training route they had pursued was helpful for them in terms of support (e.g. knowing things about the school and who to approach).

Availability of mentors, senior staff and others was a frequently mentioned factor in the narratives. For instance, some mentors were readily available to talk to regularly, in both formal and informal conversations, whereas others were available only during specified meeting times. Similarly, some participants talked about having senior staff nearby and readily available, which facilitated support seeking and provision, but there were occasional stories of this not being the case. This availability was in turn affected by other organisational factors, such as mentors performing multiple roles (see composition of teams, below), sociocultural factors such as whether departments spent time together during lunchtimes and breaks, and material factors such as the physical layout of departments within the school (e.g. if senior leadership teams resided in separate offices). Also mentioned in some narratives were the presence of SLT pastoral teams moving around the school, checking in on NQT classes and being available to support teachers with student behaviour in a proactive way.

One participant narrated how they had almost daily contact with their subject mentor.

Yeah so, 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, so even outside mentor meetings, there is quite a good dialogue I go and talk to her most evenings, just, about something. Erm,

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so it's not just limited to her, sitting there and going – ah here are your strengths and here are your weaknesses for last week, it's a bigger picture than that [] and it also means that it feels less pressured in mentor meetings to get through loads because we've actually done most of the mentoring across the week and mentor meetings are more a chance to record, what we've done and discuss anything that I've not managed to talk through about. Erm, so yeah she is the first person I would go to if I'm having, something, something going wrong whatever, like, I go chat to her, and she normally knows what to do, she's two classrooms away from me (laughing) and she's always in there, so, yeah I can see her quite a lot NQT3

Another spoke about how it was a struggle to set a time for formal meetings with their subject mentor who was also head of their department, but they found opportunities to chat at other times.

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, it's a sort of [] it's a bit too difficult for us, so rather than, us setting a time every fortnight where I'm gonna speak and I save up all my problems until then, we just talk regularly, y'know if I've got any questions I [] let him know and [] he is very my head of department's very good at sort of, if I say I'm- I'm actually really struggling with something can you help me he will just stop what he's doing and, talk me through it [] break times lunch times if we happen to have a free period at the same time which is less frequent, but he's really good about it in the mornings, I tend to come in fairly early and, he does too sometimes so he can sometimes talk in the mornings NQT5

Another participant talked about difficulties accessing support from both her subject mentor and department head.

Interviewer: And your mentor, were they in the English department?

Participant: She yeah, ermm [] but she was also part of SLT, so our meetings would be disrupted sometimes times when we meet, once a week NQT1

The head of the department [] kinda sorta didn't really have much to do with me really [] I just felt she was, just not, y'know she was just so engrossed in her own [] I mean she was just so busy and y'know [] I think teachers sometimes get too en-grossed in their own thing and forget about [the new members coming in] [] there's never enough time, for me to then, go up to and say aw can I, all so busy and always got something, you did feel awkward asking because, they're so busy

NQT1

The interview questions about support were left fairly open for teachers to decide what they themselves perceived as support. A number participants talked about the supportive effects of whole school systems such as behavioural policies, on-call systems, 'open-door' policies, or pupil 'passports' for SEN students.

Erm so we have a chance, warning and action system, erm so, if they're doing something they're not meant to they get a chance, they do it again that's your warning and then the third time, erm they get sent to the time-out room [] and sometimes they will refuse to go down there so you just hit the, the button and a member of a SLT will come [] but it's quite nice because it takes away [] you having to deal with that student so if I send someone to the time-out room and they refuse to go I just leave them alone [and] it gets dealt with I don't then have to argue with the student and kick up a fuss and then it doesn't disrupt the

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rest of the class [] So I think that's actually really good because you almost know that you're not on your own and if anything did happen, there is someone that will pretty much come straight away NQT9

Additionally, the extent and appropriateness of whole school induction procedures for NQTs and new staff had an impact on the degree of support they required with becoming accustomed to school procedures, roles, expectations, etc. These appeared to vary widely, with some teachers being given information during the summer before they started, whereas others had a couple of days at the beginning of the year, or weekly training sessions.

The composition of departmental teams was a factor mentioned by over half of participants. Several NQTs expressed appreciation at having long-serving teachers within their departments.

(I'm) very lucky within the [department] here I'm in quite an experienced department. Erm all the teachers have been teaching for, I'd say about ten plus years, some of them have been at the school for that long as well so, y'know they're very knowledgeable not just about teaching itself but, around, teaching in this demographic and, and how the school's, sort of evolving and, how they I- they can help me basically NQT2

Another felt that being in a 'young department' encouraged them to work together.

Yeah cos I think erm, again the nature of being a young department means a more kind of in it together with a lot of the things [] we're, we're encouraged to kind of use each other's strengths and erm discuss our weaknesses and try and- to help each other NQT4

Others appreciated having a mix of newly qualified and experienced teachers, as well as those coming from different training backgrounds or school environments.

6.3 Factors influencing support for NQTs

Sometimes the fact that mentors had to perform multiple roles (such as being members of heads of department or being members of SLT) affected how available they were to NQTs or created conflicts of interest.

Training events organised by the school, academy or local authority such as CPD sessions and NQT conferences were also mentioned as providing NQTs with opportunities to either directly access support, or to build networks with other teachers which facilitated support in the future.

We do have NQT training sessions, erm with all the NQTs in our school and then, other ones [] er with NQTs from, the whole area so from other schools around the area [] it's really interested to see, what people who teach other subjects, erm, some ideas that they have and [] similar kind of things like games or activities where it's not just sitting and listening or sitting and writing so, quite nice between our department to share er stuff like that but also, erm, with other NQTs from other subjects other schools and stuff like that so, yeah it's quite a, quite a nice one sharing those ideas sharing resources [] just hear other people's experiences and hear [] y'know, things that work for other people and, especially in similar schools as well like or, schools that are very different t- to your own sort of thing so, there's a few church schools in our area as well, er it's interesting to see how things, work in- 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 NQT7

Being allowed time out of school or their teaching timetables, and having lesson cover, so that they could participate in CPD activities was also narrated as supportive by some NQTs.

Sociocultural

This theme examined social and cultural factors narrated as influential upon support for NQTs, including team cultures and interprofessional relationships on an individual level.

Box 6.7 Theme 6: Sociocultural factors narrated as influencing support for NQTs

This theme was further divided into five sub-themes which related to team or department (local) cultures, and three further sub-themes encompassing other aspects of interpersonal relationships.

6.1. Department and team cultures

This sub-theme explores the different approaches and attitudes to learning and support that NQTs talked about experiencing within differing departments or teams as a whole.

6.1.1. *Safe spaces in which NQTs can learn*

This sub-theme was used to capture stories about the degree to which departments and schools were conveyed as space spaces in which to learn. For example, whether performance expectations were realistic, whether participants felt they could admit to mistakes or having 'bad lessons', and whether they could ask 'silly questions'. Also, the degree to which feedback was constructive, with specific suggestions for improvement, rather than simply focusing on negative aspects of NQT performance.

6.1.2. *Friendliness and approachability*

This sub-theme was used to capture narratives which emphasised how the friendliness and approachability of their departments (or sometimes other departments, teams or the whole school) contributed to the ease of seeking or obtaining support.

6.1.3. *Sharing versus individual competition*

This sub-theme captured stories where NQTs talked about department and team cultures in terms of having a sharing mentality (e.g. readily sharing resources with one another) versus that of individuality and competition.

6.1.4. *Made to feel valued and included (part of the team)*

This sub-theme captured instances where NQTs talked about whether they had been made to feel part of their departmental team by other members.

6.1.5. *Taking breaks and socialising together*

This sub-theme was used to code instances where teacher participants talked about how taking shared breaks, or socialising together informally with their department, faculty or school, facilitated informal forms of support or helped them get to know others so they felt better able to approach them in future.

6.2. Interpersonal relationships

This sub-theme captured other sociocultural factors narrated, relating to relationships with other staff, which affected support seeking or provision.

6.2.1. *Perceptions of other staff and roles*

This code referred to instances where NQTs talked about their perceptions and understandings of other staff and their roles, and how this influenced support.

6.2.2. *Getting to know people*

This code included instances where NQTs talked about how getting to know other professionals, forming working relationships or friendships, influenced the seeking or provision of support in the workplace. This might also be influenced by some of the material and organisational factors outlined above, as well as individual agency.

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6.2.3. *Interpersonal conflict*

This code captured instances described by trainees of interpersonal conflict which presented barriers to obtaining support.

Department and team cultures

This sub-theme explored the different approaches and attitudes to learning and support that NQTs talked about experiencing within differing departments or teams as a whole. As the interviews progressed, it seemed that department cultures might be an important factor and so an additional interview question was added (from NQT4 onwards) asking participants who they felt their team was, whether that be their department, school or something else. All but one new teacher felt that the department was their team, and one expressed that it was their whole school. Friendliness and approachability was one aspect which NQTs talked about, occasionally with regard to specific individuals or the school, but again mainly in relation to departments, and how this made it easier for them to obtain support.

One participant speculated that their department might have these qualities because it was not a 'core' subject such as maths or English, and the teachers who assisted them did not perform additional senior roles, meaning they were under less pressure and had more time to help. However, it was also a large enough department that support did not just fall to one person.

I think it's all fine just as long as, there are people there that are willing, to talk to you and help you I think that's what you need, 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 [] if you [] just feel like I cannot give an hour to someone else, then that's when the NQTs are gonna suffer. NQT5

Another participant talked about the friendly feel of the whole school that they worked in.

Everyone you walk past in the corridor says hi and stuff like that especially in the first few weeks when I started. Y'know everyone that you

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kind of come into contact with is like How you doing, How's it going do you need, y'know d'ya need help with anything [] just being friendly to people I think in a school is, one of the best ways that you can support anyone I think NQT7

One sub-theme identified in many teacher participant stories was the need for safe spaces in which to learn and feel able to ask for support. For example, whether seniors' expectations of their performance was appropriate for a novice teacher, whether participants felt they could admit to mistakes or having had a 'bad' lesson, whether they could ask 'silly questions' (NQT7 & NQT9). Also, the degree to which feedback was constructive, with specific suggestions for improvement, rather than simply focusing on negative aspects of their performance. Most of these stories concerned participants' main subject departments. However, one NQT also described their behaviour support team as being a good team to approach with questions without fear of judgement. Another felt that the whole school environment was such that they could seek assistance without it ever feeling 'punitive'(NQT6), and general feelings that if any problems arose such as issues with parents the school would have their 'back'(NQT5).

One participant described how their head of department had helped set realistic expectations for their first year.

So, a great thing that happened to be when I started in September was my head of department said to me, my main goal for you, is that you just finish, you get through your NQT year, I don't really mind how you get through it if you get through it by teaching some terrible lessons sometimes because you're tired and y'know it doesn't got to plan then that's fine and he said that he wants me to have a good work life balance [] very much, in favour of me putting myself before my job, to get me through the year so I've never felt, that there's a particular pressure

on, me, as a person, which is fantastic NQT5

Another told a story about how their head of department modelled vulnerability by talking about the lessons they had taught which hadn't gone so well.

And actually the head of department said to me, Well actually I still have those lessons as well, the expectation is just that I'm this amazing teacher because I am the head of department or I am assistant principal cos she's got multiple roles, and she's like, There's more pressure on me to do it in an observation when you're watching me but I still have those lessons where it all goes wrong so that was really really reassuring to hear NQT10

However, another NQT spoke about feeling that there was some conflict between the multiple roles that their mentor carried out, which meant they were unable to get feedback in a non-judgemental setting.

I feel like my mentor almost takes the role of my assessor as well as my mentor [] my mentor's also erm my second partner so she erm would observe me formally as well as, observe me for kind of just see how I'm doing so she kind of serves like a dual purpose [] causes the erm relationship to be a little bit [] I dunno strained perhaps at times [] I don't necessarily agree with that necessarily way of doing things [] nobody's thought out different people to observe me, and erm [] the role isn't just kind of see how you're progressing and provide you with feedback [] if you know what my weaknesses are [] and I want it to be more of err, completely fresh look at my teaching as opposed to someone who's- knows exactly what's going on with it NQT4

Another aspect of department culture which was talked about by NQTs was whether fellow teachers were happy to share resources and lesson plans, or

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whether they kept resources to themselves and behaved in ways which were individualistic and competitive. Most of those who talked about this factor were highly appreciative of the sharing culture in their departments.

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 of [name of book] then have you got any resources you get like ten emails back from people saying yep use this or you can do this and da da dah NQT6

However, a couple of NQTs told more negative stories. Although one participant was in a faculty that tended to share resources and help one another out, they had struggled with obtaining help from one particular member of staff in their first term when starting to teach a new subject.

I've never taught [subject] in my life before let alone study it or anything [] I didn't really understand how the course works and I didn't really understand the lessons or the content or anything [] and I remember that first term I just was so stressed [] I was really upset and I think I cried like once (laughs) [] of the other teachers that I was, kind of sharing with [] erm she wasn't very supportive so she, she was very much 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

NQT8

NQTs also narrated stories about the importance of feeling like 'a valued member of staff' (NQT2) and part of the team.

I dunno I don't feel I'm tre- treated necessarily like the trainee I feel like I'm treated like a co-worker NQT4

Taking lunch breaks together, or socialising informally after work, with their department, faculty or school, facilitated informal forms of support and helped them get to know others so they felt better able to approach them for support.

Yeah I mean we're really close we- we're quite social, so I know there's some departments where everyone just has lunch separately in their classrooms they don't really talk and we have an area- we have a faculty area erm, and we all have lunch there and we all have break times there and, there's a lot of like laughing and joking, erm so it's a really nice environment to be in [] and y'know we g- y'know we go out for Christmas and y'know things like that in [] and it- I feel like I'm working with friends, and that makes everything a lot easier, in terms of, well everything w- everyone in that department has [] been very supportive of me through the NQT, and not just in history but with the other subjects which are part of humanities as well NQT5

Having staff in their subject departments or in their pastoral teams who 'checked in' on them informally to make sure they were doing alright also opened up avenues of communication so that NQTs could request help if they needed to.

Most of the NQT participants told stories about being able to access support from their department when needed. However, one NQT in particular talked about experiences of feeling very unsupported by their department, with unrealistic expectations, highly negative feedback from seniors, and a culture of competition amongst the teachers who talked 'about how wonderful they are [] in the office' rather than one of cooperation or sharing resources. This participant also noted that other teachers had joined and left the department during that same year, one of whom had voiced similar feelings to them of being unsupported.

The main issue was within the department [] the department had such high expectations, cos you can see they've had, previous to me they've had two other people, who were relatively new to, teaching English, they've both left yeah [] an- it was more, yeah cos just support wasn't,

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I just felt that the [] it was focusing on the negative I think.

There's nothing wrong with having high expectations but [] y'know, a new teacher coming in, you're bound to not have the same standing as you have obviously, I mean I was aiming all the time, y'know trying to get up there [] but I'm not there's no way I was gonna get there [] not in my, few months of teaching NQT1

For this participant, there had previously been one teacher who had taken them 'under [their] wing', but this person subsequently left the school and they lost this source of support who had helped them to feel part of the team.

The [] first term it was so different to the, the rest of the terms cos I just felt like even in the office, when it was break time or lunch time, because this teacher was there [] I could actually [] talk, y'know we could talk about stuff but when she left, there wasn't really anyone there that I could talk to or actually be, part like I'm included y'know [] this other teacher would talk about certain things I did and then she'd say, ah, erm NQT1 did this [] and she would talk to the others about it? [] and one of the teachers actually [] used my resources and y'know that kinda sort- that kinda thing? But after she left that didn't happen NQT1

Interpersonal relationships

This sub-theme explored other sociocultural factors relating to interpersonal relationships in the workplace.

Perceptions of other staff and their roles was influential upon support seeking and provision. In particular, support staff in general appeared to be valued positively due to their in-depth knowledge of students and being able to give specific advice on SEN topics. However, NQT participants' narrated attitudes

towards teaching assistants in the classroom were variable. Amongst those who perceived TA support as helpful, some portrayed them as knowledgeable colleagues or as an 'extra pair of hands'. Others talked about working as a team, giving TAs the authority to act relatively independently in the classroom. One participant felt that their past experiences working as a TA themselves, had helped them understand the role better and to appreciate the support they provided.

I always try and actively y'know [] ask the teaching assistants what do you think is best for this child and kind of make it, a collaborative thing rather than [] me just deciding what's happening and stuff like that [] using the person that works with [a student] all the time, using that teaching assistant getting their advice [] I find it pretty helpful, erm but like I said that's probably because I used to be in their shoes NQT7

A couple of NQTs, on the other hand, expressed quite conflicted feelings about having teaching assistants working within their classrooms.

To be honest I find (laughing slightly) TAs a bit of- a bit of hard work, sometimes, the ones I get always seem to be the ones that when I ask for silence, they assume that they don't mean them and they'll just continue talking to their student, and I find it quite awkward cos some of them have been at the school a really long time [] They do know the students better than I do that's, fine but I still need to be able to teach (laughs) NQT5

These perceptions of other staff were further explored using the idea of character tropes, presented in the comparative cross-professional analysis in chapter 7.7.

Getting to know people was also described as helpful for obtaining support from others, as working relationships turned into friendships and this made it

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easier to approach others in an informal manner. Some NQTs kept in touch with those who had been on the same teacher training courses via social media or because they had found jobs in the same schools. Other participants got to know other staff at new starter induction programmes or NQT training courses, met at school-wide social events, or regularly socialised together with their departments outside of school. One NQT talked about the value of 'seeking' out others ^(NQT5) (an example of agency - see section 6.4). There were also some stories of conflict between individual teachers, and in one narrative, inter-departmental conflict, due to a culture of performance which meant that departments felt they had to compete for praise.

6.4 Stories of agency by NQTs

6.4.1 RQ4.2: How do NQTs describe responding to these factors?

Teachers narrated responding in differing ways to the organisational, material and sociocultural aspects of their working environments. Although the research questions were aimed at eliciting stories of support, teachers also talked about developing autonomy and displaying competence in the workplace, and told stories about helping others and contributing towards their departments. Some participants talked about the importance of establishing contacts in the workplace so that they had people to go to. Others instigated their own learning experiences or sought alternative sources of support when what they needed was unavailable. However, some stories talked about persisting in the face of difficult circumstances and inadequate support, and in one case by leaving the school they were working at without completing their NQT year.

Box 6.8 Theme 7: Agency (individual differences in responses of NQTs to structure)

This was an analytical theme, exploring the different ways that the new teachers talked about responding to surrounding sociocultural, organisational and material factors, in terms of actively resisting, negotiating, being constrained by or making an impact upon their working environments, and how this influenced their ability to seek and obtain interprofessional support. This theme was coded at the level of whole narratives.

7.1. *Competence and autonomy*

This sub-theme was used to code stories in which participants emphasised their competence and autonomy as teachers, which might also mean they needed little in the way of support.

7.2. *Reciprocity (helping others)*

This sub-theme was used to code stories in which participants focused on their ability to help others, contribute to their team, or reciprocal forms of support (e.g. NQTs helping each other).

7.3. *Persistence (not speaking up)*

This sub-theme was used to code instances where participants described responding to inadequate support by persisting in the face of difficulties, 'hanging in there', or getting through it.

7.4. *Seeking alternative sources of support*

This sub-theme was used to code instances where participants described responding to inadequate support by seeking alternative sources, e.g. wider teaching networks via social media.

7.5. *Initiating learning experiences or requesting feedback*

This sub-theme was used to code instances where participants proactively

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sought out new opportunities for learning and feedback to enhance their professional development.

7.6. Making contacts and building relationships

This sub-theme was used to code instances where participants went out of their way to build professional relationships and social networks in and out of school, to facilitate support-seeking.

Interwoven into participants' stories about support were instances where they positioned themselves as competent, autonomous professionals, sometimes emphasising their lack of need for a great deal of support or relating stories of how being given responsibility was an advantage for their development as teachers. Some NQTs pointed out that 'even the most experienced members of staff' (NQT2) need support in an ongoing manner, and therefore the focus need not just be on NQTs.

Having this informal continuous support, it's not just me that asks questions it's everyone, if they've got a problem in the department, with a particular child or [] thing they've been asked to do, I don't feel like it's just me that asks things and therefore I feel that it'll continue past, my NQT [year] NQT5

Related to these stories of competence and a desire for responsibility, were stories about NQTs' inclinations to help others and make contributions towards their departments and schools. This appeared to help some feel part of the team and as valued members of staff, not 'just' an NQT.

I dunno 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 NQT4

Some teacher participants told stories illustrating other agentic behaviour, such as seeking alternative sources of support when it was unavailable, or making conscious efforts to get to know people and build professional networks within their schools.

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 NQT7

Other teachers described instances where they responded to inadequate support by persisting, 'hanging in there' or pushing through, whilst perhaps not seeking alternative sources of support or speaking up about the difficulties they faced. For instance, one participant related feeling overwhelmed by workload during their first term, due to being asked to teach a new subject area and a member of staff who refused to share resources.

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 NQT8

6.5 Inadequate support for NQTs and suggestions for improvement

6.5.1 RQ2.2c: What gaps did NQT participants narrate as existing in their support? *and*

RQ3.2b: What suggestions did participants have for improving future support?

During interviews participants sometimes talked about instances when they were unable to obtain support, or support had been inadequate, such as when the issues they faced had remained unresolved. In addition, at the end of teacher interviews participants were asked what they might suggest changing to improve support for NQTs in the future.

Box 6.9 Theme 8: Gaps in support provision for NQTs and suggestions for improvement

This theme was used to capture instances where certain types of support were missing or inadequate, and NQTs' own suggestions for improving teacher support.

8.1. Support missing or inadequate

This sub-theme was used to note instances where NQTs described having sought support but had been unable to obtain it or the support had been inadequate to meet their needs.

8.2. Suggestions for improvement

This sub-theme was used to code participants' own suggestions on how to improve support for future NQTs.

Both of these sub-themes are described in more detail in Chart 9.3, but a summary of suggested improvements follows in Box 6.10.

Box 6.10 Suggestions for improved NQT support

Professional networks: More opportunities to meet peers and develop wider professional networks, via activities such as NQT conferences and regional training events.

If you were the only NQT at your school, then getting to know other NQTs, and literally just maybe having someone that you can email, or message erm, to talk to about issues like Oh no this has happened to me. NQT9

Social media: The use of social media to access resources, ideas and inspiration (although not all participants liked or wished to use it).

As an NQT, right there at the beginning, I wish someone had told me how good Twitter was as a support tool [] before you plan any lessons look to make sure no-one's made it before that you can, change it round, because that saves me so much time now. NQT3

Departmental resources: Up to date, organised and easily accessible resources, available for use by new staff, would help reduce planning time.

cos that's been the most tiring part of my NQT is the amount of hours that I spend lesson planning, and of course I know from training in other schools [] a lot of schools just have it all there.. in nice PowerPoints.

NQT5

Tailored induction programmes: Identifying training needs before NQTs started could reduce redundancy, save time and focus efforts on skills gaps.

Asking NQTs more what they need support in in that first couple of weeks [] they kind of give you a programme [for] the year and some of it is stuff you've already done [] literally when you're training or at uni [] it's quite tedious sometimes to sit through another behaviour management session. NQT7

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SEN training: More basic training on SEN topics such as dyslexia and autism, and an introduction from SEND teams when NQTs began working in schools.

I asked the teacher for some support and she's like Oh just use some.. autism friendly ways to teach and I was like [] well I don't know what that is [] I think that is partly lacking from a PGCE level but also maybe the schools aren't aware of it, when you become an NQT they kind of like just assume you know. NQT9

Wellbeing training: Training which taught NQTs how to look after their wellbeing, spot the signs of burnout, and know their workers rights.

it's very strange when you work in education because nobody wants to talk about pay nobody wants to talk about unions nobody wants to talk about the rules or the laws, and there's this big expectation that when you're sick you don't take time off because then you're going to be behind with your students and then it's more effort to cover work NQT8

Praise and general feedback: More recognition of when teachers were doing things well, and indications of general progress.

Yeah I think it is partly about wanting to be acknowledged because I think in so much in teaching we don't get praise for things that you do, and it goes so unnoticed [] half the time and normally the only time you really have contact with people is when things go wrong. NQT6

Mentoring not linked to assessment: Forms of mentoring not linked to assessment, such as coaching or mindfulness training by allied professionals visiting the school, or teachers not in senior positions to NQTs.

Having that time, and space to kind of reflect on and identify your emotions [] that mindfulness guy has been amazing, so if all NQTs could have access to something like that. NQT10

In-house CPD activities: Being encouraged to observe teachers in other departments to see different teaching styles, and visiting lecturers on different topics.

When I was doing my training, we had [] guest lecturers come in from outside the uni [] it was really beneficial and quite inspiring, and I just thought something like that would be brilliant for NQTs cos you're almost, once you're qualified you're sort of left out to just get on with it. NQT2

I feel like they could have encouraged us a bit more at the start to say Aw y'know, walk around the school see what blah-de-blah's teaching like.

NQT11

Whole school support: Ensuring that seniors are also supported, reducing pressure to perform (e.g. to produce perfect exam results) and giving sufficient time for mentoring roles, might also ensure better support for NQTs.

If you don't have the time if in your position as head of department or head of key stage three or head of whatever has so much work, that you just feel like I cannot give an hour to someone else, then that's when the NQTs are gonna suffer. NQT5

Subject-specific support: More support, or time provided, to develop subject-specific knowledge relating to new courses and curricula.

some of the texts that we're doing I've not obviously studied at my GCSE years, yonks ago [] so I still have got my- got to build up that knowledge, that subject knowledge [] It would be a help if you do two years I suppose, with NQT cos then it gives you that extra time. NQT1

6.6 A provisional model of workplace support for NQTs

The model presented here in Figure 6.1 was created in order to summarise and various factors narrated as facilitating or inhibiting support for NQTs, and the ways in which these factors might influence each other.

6.7 Summary of findings of analysis of NQT data

The aims of this chapter were to present findings on *who* provided support to newly qualified English secondary school teachers, *what* types of support were provided or sought, and the *factors* described as facilitating or hindering interprofessional workplace support and learning. It also looked at new teachers' *responses* to these multiple factors. The people used as sources of support and the factors which influenced this varied considerably between one school context and another, and were also narrated by teachers as differing between departments. For instance, some participants narrated most stories of support relating to their own departments, whereas others accessed support from a wide range of staff inside and outside of school, including support and administrative teams, wider professional networks of teachers, and family and friends.

The types of support provided by others included information and advice on the teaching role itself and local information on specific school contexts, observations and feedback, other professional development activities such as collaborative lesson-planning, social and emotional support, practical support (mainly in the form of resource-sharing) and support given directly to students. Although many stories related to formal support systems, even more were initiated by NQTs themselves or arose during informal interactions throughout the day. A number of sociocultural and organisational factors influenced the seeking, provision and effectiveness of this support, including departmental cultures, perceptions of other roles such as those of teaching assistants, and organisational practices which facilitated the building of professional relationships and ongoing learning.

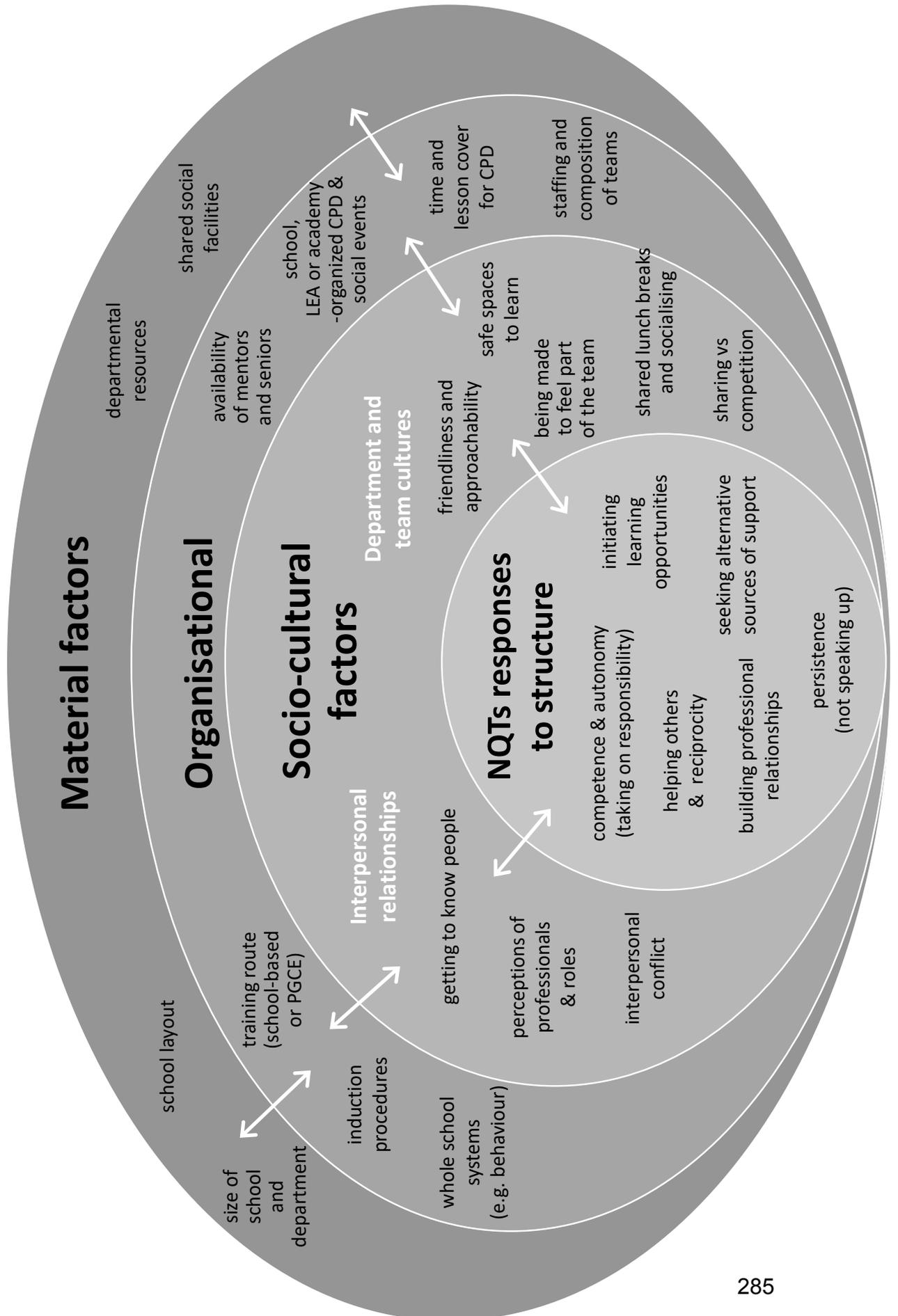
Also of interest, were the ways in which trainees responded to these multiple factors. For example, by emphasising their autonomy, seeking opportunities

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to experience responsibility or support others in turn, seeking alternative sources of support where necessary and building social networks. Some NQTs narrated stories of being unable to meet their support needs, and in trying to persevere whilst feeling overwhelmed by circumstances.

A provisional model of workplace support for new teachers was developed so as to summarise these factors and illustrate how novice teachers enacted agency within the contexts of their material, organisational and sociocultural environments, and the interactions between them. However, as can be seen in the chart summarising participants' narratives against themes (appendix 9.3), there was variation in which factors were important for individual teachers in different schools.

Figure 6.1: Provisional model of factors influencing workplace support for NQTs



7 Findings of cross-professional analysis

7.1 Introduction

The third stage of analysis was aimed at comparing the two different but in many ways analogous professional contexts (see section 2.3.17), and the support which new doctors and teachers gained during their first year. This comprised:

- First, a mapping of the terrain of the workplaces described in the medical and secondary school teacher narratives, and the social and organisational groupings they operated within to obtain support. This was to set the context for further comparative analyses.
- Secondly, a comparison of the broad themes identified in both sets of data, to highlight points of similarity and divergence. This included a deeper analysis of perceptions of other staff as narrated in the doctor and teacher data, through the identification of professional character tropes.
- Thirdly, consideration of how collection and analysis of the teacher data acted as a lens through which to re-examine and pick up new strands in the medical data.
- Next, building on previous analysis, an overview of the strengths and limitations of different source types for newly qualified professionals
- Finally, drawing the findings together to develop an over-arching model of work-

place support for newly-qualified professionals, which might be used as a tool for future research and aid assessment of the conditions required to facilitate workplace support in similar professional environments.

7.2 Mapping the workplace terrain of doctors and teachers

As illustrated in Figures 7.1 and 7.2, both F1s and NQTs operate within local 'microclimates' or 'ecologies' of practice, nested within progressively larger sociocultural, organisational and political environments. For both professions, the department (whether that be medical wards and hospital departments, or subject-specific departments and faculties in schools) represents a key environment. The local climates of these particular departments were narrated by participants as varying widely, even within the same hospital/clinical setting or school, exhibiting differing social and cultural norms. However, medical trainees additionally need to acclimatise to new sociocultural microclimates every four months as they move between clinical placements. Some medical participants also described workplace environments which differed again from hospital wards, such as clinical placements undertaken at GP practices or clinics.

Participants sometimes described the effects of wider spheres of organisational culture upon their workplace support. For example, in the medical data, there was the finding that staff shortages and poorly-managed rotas could lead to pressure upon a whole department, leaving little time for F1s to seek support from senior staff and difficulties in ensuring protected time to meet with clinical and educational supervisors. Similarly, some NQT participants described how cultures of performance could put pressure on teachers and therefore lead to competition rather than cooperation.

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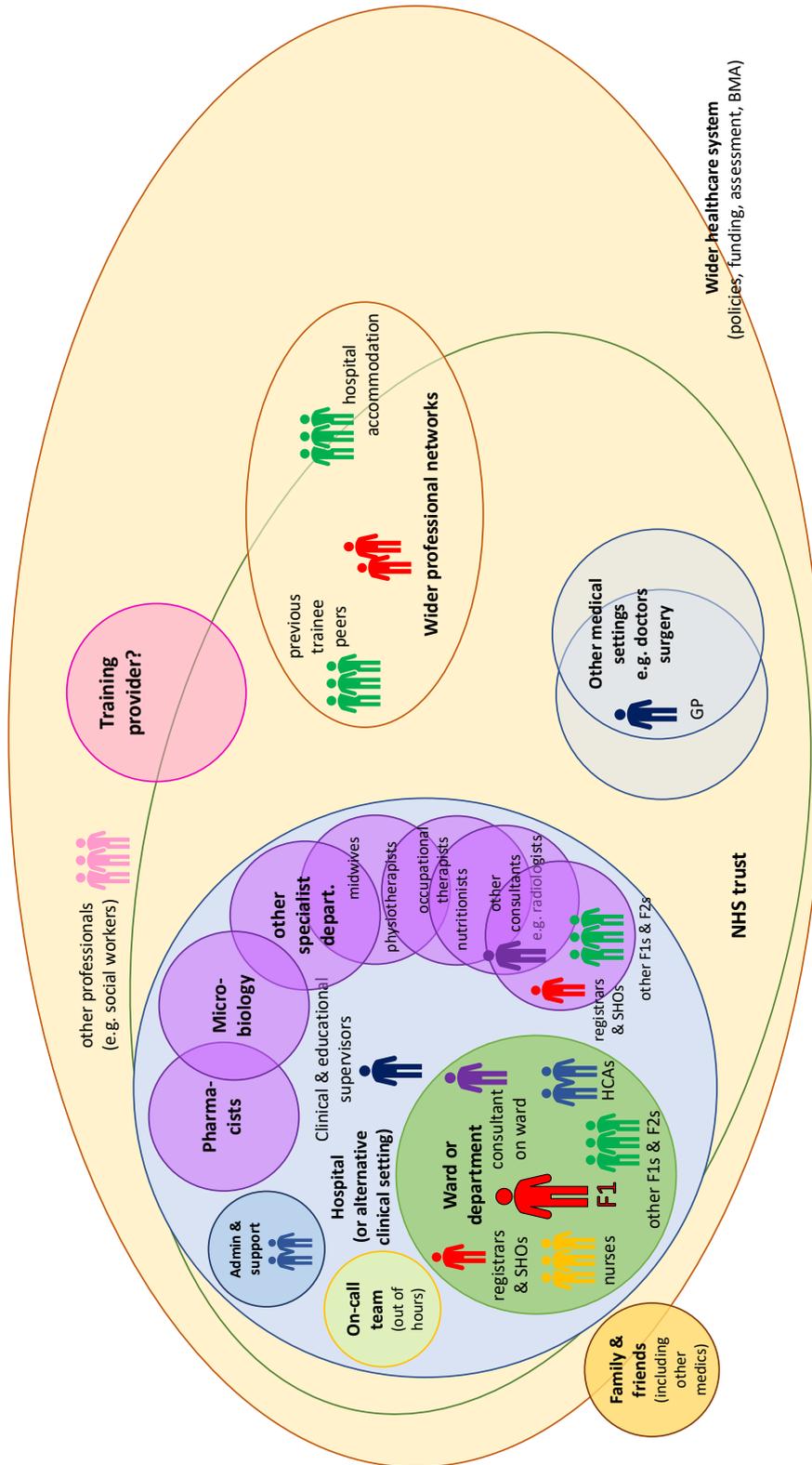


Figure 7.1: The workplace terrain for newly qualified doctors (F1s)

7.2 Mapping the workplace terrain of doctors and teachers

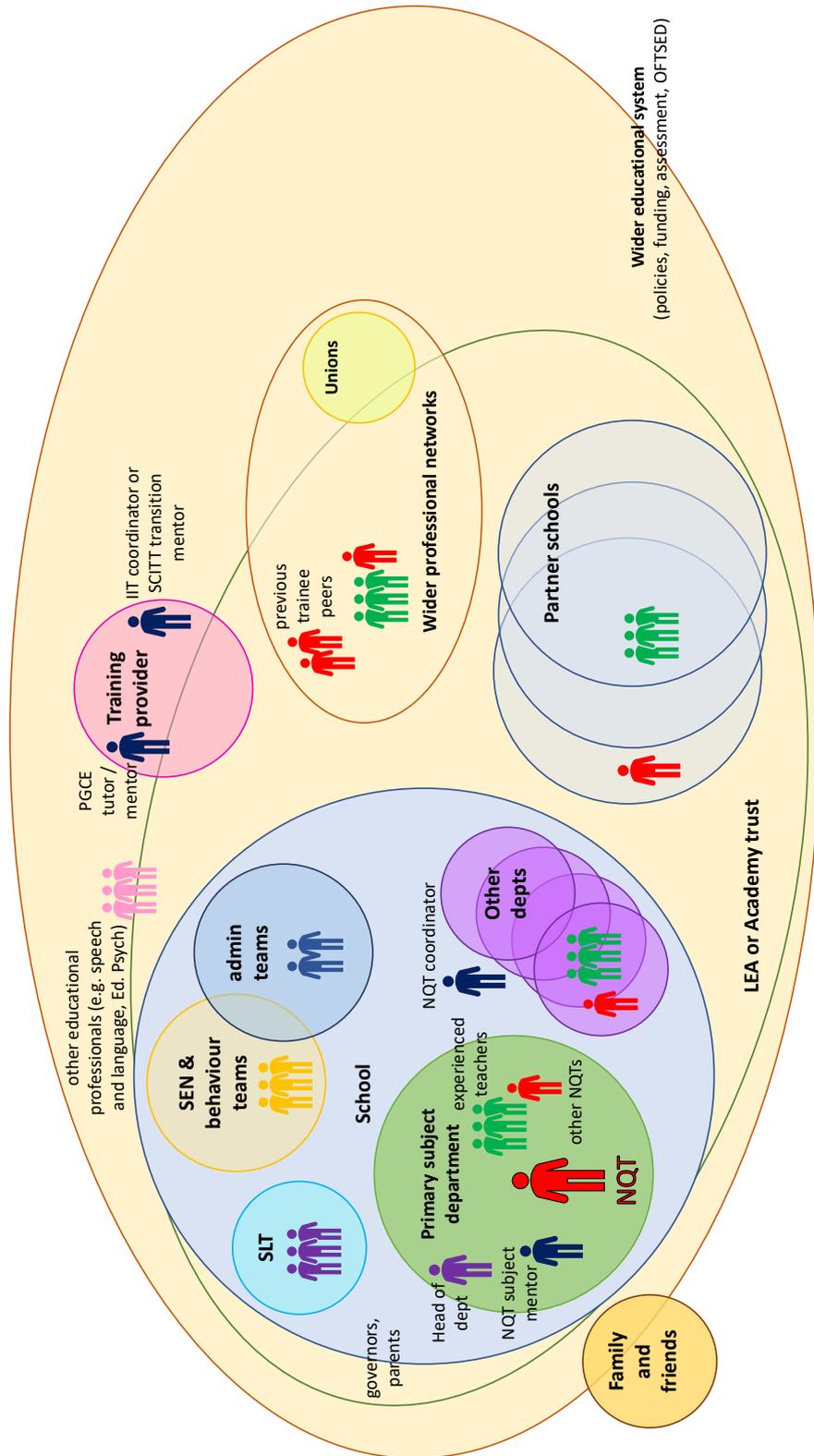


Figure 7.2: The workplace terrain for newly qualified secondary school teachers (NQTs)

7.3 Comparison of themes in the medical and teacher data

7.3.1 RQ5.1: What similarities and differences were found between the findings for F1s and NQTs, with regard to the types of people who provided support?

As illustrated in the previous analytical findings (see chapters 5 and 6), new doctors narrated receiving the majority of their support from within their medical wards or departments, from other doctors of various grades and from nurses (see Table 5.1). The teachers similarly received most of their support from within their subject departments, from teachers of varying degrees of experience and seniority, including middle leaders such as heads of department (see Table 6.1). However, most teacher participants also received high levels of support from their subject department mentors, and the NQT advisors responsible for all NQTs in a school, academy or LEA. A number of teachers reported very frequent contact with these professionals, which also encompassed regular, informal discussions ‘in-between’ more formal encounters, whereas medical trainees talked about difficulties finding time for formal meetings with clinical and educational supervisors. Instead, medical participants appeared to rely on finding natural mentors and teachers within their departments in order to facilitate informal learning experiences. Some of these informal teachers were seniors on their wards but many were closer in the hierarchy, and registrars (usually only a couple of years ahead in the medical training pathway) were the most frequently cited sources of support by these F1s.

Medical participants also narrated receiving support from specialist doctors in other wards and departments, such as pharmacists and microbiologists, from

7.3 Comparison of themes in the medical and teacher data

allied professionals such as nutritionists and midwives, and in particular finding much support from nurses. In comparison, the extent to which teachers accessed support from teaching assistants in their classrooms, and from other allied staff such as behavioural support, SEN support and administration staff varied widely between participants, with some telling multiple stories involving these groups and others telling practically none.

Whether secondary school teachers accessed wider professional networks also differed between participants. Some teachers gained support from past tutors, peer trainees, teachers they had met through training or at NQT conferences. Others received support from family and friends, some of which also worked in education. An additional aspect of some teachers' support was their social engagement with other teachers online, via social media such as Twitter. Medical participants, on the other hand, rarely mentioned support from family members in their narratives (one F1 did mention support from a family member who was also a doctor), but did speak about the supportive nature of friendships formed with other foundation trainees like themselves. Online professional networks were also not mentioned in their narratives, which may possibly be a reflection of these particular secondary data sources. However, F1s mentioned how they used technology to access medical information, which was broadly analogous to how some NQT participants used the internet to search for resources, which might be regarded as a source of 'support'.

7.3.2 RQ5.2 What similarities and differences were found between the findings for F1s and NQTs, with regard to the types of support provided?

The types of support provided to new doctors and teachers showed some important overlaps. For instance, both medical and teaching participants talked about gaining information and advice on specific topics from knowledgeable others, and carrying out interactive learning activities with them. There were also some differences which reflected the particular working contexts these professionals operated in. Most notably, foundation trainees narrated frequent stories of checking decisions before acting or where other professionals picked up on their errors, clearly of relevance in medical environments where errors could engender risks for patients. Whereas, some teacher participants described how support provided directly to the students, whether that be with social and emotional issues, difficult behaviour, or differential learning needs, was also supportive to them in performing their role. Box 7.1 summarises these similarities and differences described.

Box 7.1 Types of support narrated as provided to new doctors and secondary school teachers

Medical participants (F1s)

Teacher participants (NQTs)

'On the spot' clinical learning

Interactive collaborative activities

Both new doctors and teachers engaged in collaborative, socially interactive learning activities with others in the workplace, whether that consisted of being guided through a medical procedure with continuous feedback or jointly planning lessons and schemes of work. This was the type of support described most often by F1s in their narratives, and generally occurred on the spot as opportunities arose. Collaborative learning activities were also frequently mentioned by teachers, but due to the nature of teaching, most these were described as less immediate, occurring during breaks, PPA time or after school.

7.3 Comparison of themes in the medical and teacher data

Checking decisions and identifying errors

New doctors talked about instances of checking decisions and other staff picking up on their errors.

Observations and feedback

In the medical analysis, the focus was on informal feedback rather than formal assessments, so a true comparison with the teacher data was not possible for this sub-theme. However, it was noted that doctors described difficulties arranging meetings with supervisors and finding seniors to observe them doing SLEs^{2.1}. Whereas, most teacher participants described receiving regular observations from mentors and seniors, and some arranged additional informal observations with other staff, such as peers. Both sets of professionals mentioned receiving insufficient praise and general feedback on how they were doing.

Information and advice: clinical

Information and advice: teaching

Both sets of professionals described many instances of seeking and receiving information and advice from a variety of others, relating to their specific medical and teaching roles.

Information and advice: ward culture

Information and advice: school culture

Both new doctors and teachers described seeking or being provided with information and advice on the specific workplace contexts they operated in. For doctor participants, this was an ongoing activity as they had to adjust to new placements every four months, and to new wards when they were 'on-call'. Whereas, teachers were able to accumulate this knowledge over their first year, and some participants were already familiar with schools before starting their NQT year, via training placements or school-based ITT programmes. Both professionals described a wide variation in induction procedures, for different wards, clinical placements and schools.

Information and advice: practical

This was identified as a minor theme in the medical data, and could perhaps have been subsumed under knowledge of ward culture as it was highly related.

This type of advice was mentioned very infrequently by teachers

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Social and emotional support

Social and emotional support

Social and emotional support was mentioned by both doctor and teacher participants fairly often, and included emotional release after stressful events, and reassurance on their performance. For both professionals, those closer to them in the hierarchy were frequently described as the providers of this type of support.

Practical support

Practical support

Practical support for new doctors tended to come in the form of helping with everyday tasks, and was generally provided by nurses, registrars and peers. The majority of practical support for teachers took the form of resource-sharing, and was mainly accessed from more experienced teachers within their departments or via wider professional networks.

This theme was not identified in the medical data. However, an analogous type of support might be the 'brokering' that some staff performed, such as talking to patients or staff on behalf of F1s.

Student support

Teachers additionally benefited from support given directly to their students, either within the classroom, or through removing students from the class in order to ensure teaching could continue uninterrupted.

7.3.3 RQ5.3a: What similarities and differences were found between the findings for F1s and NQTs, with regard to the factors which influenced support provision?

Supportive interactions between individuals and teams were influenced by a number of different enablers and constraints, which were sociocultural (e.g. personal relationships), organisational (e.g. policy and practice) or material in nature (e.g. resources, physical spaces). Similarities and differences between these for doctors and teachers are summarised in Box 7.2.

Box 7.2 Factors narrated as influencing workplace support for new doctors and secondary school teachers

Material factors

Teacher participants described how the size of subject departments could influence support; for example in small departments close bonds might develop, but alternatively if other teachers were unsupportive this might lead to isolation. Particular school layouts and access to shared facilities were also mentioned as facilitating frequent contact and opportunities for informal or spontaneous support. Material factors were not originally identified as a theme for medical participants, but a re-visiting of these data uncovered some references to social interactions being facilitated by the availability of shared 'mess' or common rooms, and shared accommodation for foundation trainees.

Organisational factors: Availability of staff

Availability of staff, particularly seniors, was a factor mentioned by both professions, but was a more dominant theme for the F1 trainees. A variety of factors inhibited access to senior support within clinical settings, including out-of-hours working, seniors being physically elsewhere, staff shortages, and time and workload pressures. F1s sometimes narrated turning to other staff, such as nurses, microbiologists or pharmacists, due to perceptions that they were more readily available. For NQT participants, depictions of availability of seniors and mentors varied depending on school or department, and could be affected by organisational factors such as staff being under time pressure or performing multiple roles, whether staff socialised together, and material factors such as physical layouts of

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departments within schools.

Organisational factors: Other

An additional factor described by new doctors was their workload and the pace of the ward, which could influence whether they had sufficient time to seek help. The focus of the medical data analysis was on informal support and therefore induction procedures were not analysed in depth. However it was noted that descriptions of induction provision varied widely between wards and departments. Analysis of the teacher data looked at both formal and informal support systems, and teachers narrated a number of additional organisational factors as potentially supportive. This included whole school behavioural systems or 'on-call' systems, induction procedures, staffing, team composition, and time allowed for CPD activities. In addition, some schools or departments organised training or social events, facilitating opportunities to meet others and therefore future support. Some teachers also described the benefits of school-based training routes.

Sociocultural factors: Department or team cultures

For both analyses, department and team cultures was identified as a strong sociocultural theme. Doctor participants narrated local 'cultural' differences with regard to enthusiasm for teaching, and being offered learning opportunities or constructive feedback. There were many overlaps here with teachers' stories, which conveyed similar variation between schools, and departments within schools, regarding the extent to which NQTs felt that: they could ask questions and admit mistakes, staff were perceived as approachable, they were valued by their teams, and received constructive feedback. Differences were seen, however, in the extent to which teacher participants described socialising and taking breaks with others, mentioned only rarely by medical participants. Also, the sub-theme of sharing versus competition; most school departments were narrated by NQTs as readily sharing resources, but two participants described instances of competition between individuals in departments. Competition was not described explicitly within the medical data. However, the influence of formal hierarchies upon support was described by a few F1s.

Sociocultural factors: Interpersonal relationships

For both sets of data, perceptions of other staff and their roles was an important sub-theme (further explored using the theme of character tropes in section 7.3.4). In this analysis, a parallel could be seen between perceptions of nurses and teaching assistants, as F1 and NQT participants varied widely as to whether they perceived the support of these immediate juniors in a positive or negative light. Doctor participants, however, differed in their more

7.3 Comparison of themes in the medical and teacher data

frequent descriptions of seniors being difficult to approach, whereas teachers narrated this rarely.

Getting to know people was a common theme for both professionals, as building relationships and developing rapport was described as promoting support-seeking. Some instances of interpersonal conflict were also mentioned by both sets of participants. A point of divergence was that doctors narrated how improving their communication skills had helped facilitate support. Knowing which staff to approach and when was also identified as a separate sub-theme for F1s. Formal hierarchies were also mentioned by some F1 participants as influencing support, whereas this factor was not identified in teacher stories.

7.3.4 Character tropes.

RQ5.3b: What similarities and differences were found between the findings for F1s and NQTs, with regard to perceptions of other staff, as indicated by the professional character tropes identified in participant narratives?

The findings of this explorative analysis was that sometimes conflicting and contradictory perceptions of other professionals existed. A full list of the character tropes identified in both the medical and teacher data are presented and compared in Box 7.3, and then are discussed with reference to how seniors, juniors, and staff of different levels of experience were portrayed in the narratives, with reference to illustrative quotes.

Box 7.3 Character tropes identified in the narratives of newly-qualified doctors and teachers

Descriptions of professional character tropes identified	Healthcare staff characterised	Educational staff characterised
<p><i>The Good Mentor</i></p> <p>A character frequently willing and available to take the time to teach others, explain their thinking, pass on useful information, or give constructive feedback.</p>	<p><i>consultant, registrar, pharmacist, anaesthetist, peer (F2), SHO, GP, supervisor, microbiologist</i></p>	<p><i>head of department, subject mentor, coach, teacher in same department, NQT+1</i></p>
<p><i>The Knowledgeable Colleague</i></p> <p>A character who represents a valuable source of support, due to their specific expertise or in-depth knowledge.</p>	<p><i>nurses, pharmacist, midwife, dietician, SHO, registrar, microbiologist</i></p>	<p><i>SEND team, behavioural support, teaching assistant, HTLA, exams officer, head of faculty</i></p>
<p><i>The Approachable Senior</i></p> <p>A senior character described as friendly, approachable, relaxed, nice, comfortable or non-intimidating.</p>	<p><i>consultant, registrar, SHO, microbiologist, pharmacist, supervisor</i></p>	

The Old Hand

A character who represents a valuable source of support, due to their long experience. However, may also be perceived as stuck in their ways.

nurses

experienced teachers in same department, heads of department or year, subject mentor

The Undermining Junior

A character who works against the narrator, by not following instructions, going in their own direction, or being deliberately obstructive.

nurses, healthcare assistant

teaching assistants

The Critic

One who is unnecessarily nit-picking and critical, beyond which is necessary for passing on information or giving feedback. The narrator may convey a sense of having been 'told-off' or lectured.

consultant, registrar, microbiologist, pharmacist, nurse, haematologist, radiologist

head of department, senior leadership team

The Intimidating Senior

A senior character who is difficult to approach because of perceptions that they are socially threatening or scary.

consultant, microbiologist, anaesthetist, radiologist, registrar

teachers in same department, head of department, SENCO

The Dictator

A character who tells others what to do, with little explanation of the reasons behind their decisions.

consultant, registrar, senior, nurse, microbiologist

The Parental Figure		
A character who looks after the emotional well-being of others in a paternal or maternal manner.	<i>senior, consultant, registrar, nurse, ward assistant</i>	<i>head of department, teachers in same/different departments</i>
The Helping Hand		
A character who 'pitches in' to help others in practical ways or to lighten their workload.	<i>nurses, peers (F1s and F2s), registrar</i>	<i>teaching assistant, administrator</i>
The Bully		
One who abuses their power and status to belittle, patronise, humiliate, ridicule or otherwise bully others. May reinforce the hierarchy through actions.	<i>consultant, microbiologist, registrar</i>	
The Inaccessible Expert		
A character who is very knowledgeable in their field but appears somewhat removed from those lower in the hierarchy, either being uninterested in or unaware of the experiences of novices, or unable to convey information at the right level.	<i>consultant, senior, registrar, microbiologist, supervisor</i>	<i>head of department, experienced teachers</i>
The Forerunner		
A character who has recently pursued the same path as the narrator and so understands where they are, what their experiences have been, and what their goals are.	<i>SHO, F2, registrar</i>	<i>NQT+1s, subject mentor (NQT+2)</i>
The Friendly Peer or Near-Peer		
A character who is currently on, or has recently pursued, the same path as the narrator and so understands their experiences and goals.	<i>other F1s and F2s, SHO, registrar</i>	<i>other NQTs NQT+1s, subject mentor (NQT+2)</i>

The Pushy Junior

A character lower in the professional hierarchy than the speaker, described as being *nurses* pushy, insistent, pestering, or otherwise applying pressure.

The Mistrustful Colleague

A character who does not trust the speaker's judgement or knowledge. *nurses, registrar, seniors*

Senior staff

In a number of F1 narratives, seniors were characterised as **Intimidating** and therefore difficult to approach.

dealing with microbiologists they're all really scary people over the phone (laughter) MT_I_P31

Others were portrayed as **Dictators**, **Critics** or **Bullies**. For example, one F1 related feeling criticised by their registrar and other seniors on their new ward, with subsequent impact on their confidence.

This what happens quite often on the ward on plastic surgery erm you kind of get pulled up for every tiny thing that you do any tiny thing that isn't quite right someone will point it out to you whereas that's not really been the case in my last two jobs so you I almost feel I've got to the point where I feel I can't really do anything right anymore at times and because I've got that thought in my head now every time something minor gets picked up I almost feel like I am being told off again. FT_I_P32

Another described how attitudes shifted towards them once they made the transition from medical student to F1, with some seniors expecting them to simply follow orders 'because that's the way it's done', rather than 'question things..and ask why'.

I'm glad I've still got the confidence to do that even though as juniors you're put down time and time again and told to just get on with things which isn't right but it happens a lot. FT_A_P26

Some seniors were also portrayed as **Inaccessible experts** who, whilst possessing a lot of experience, might find it difficult to relate to the novice's current situation or convey knowledge at the right level. This perceived lack of approachability and

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accessibility of seniors was cited by some medical participants as one reason why they appreciated support from those closer to them in the hierarchy, such as fellow trainee doctors, SHOs and nurses. These staff were depicted as able to better relate to the situation of novices and to deliver information at an appropriate level.

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

Portrayals of senior staff in these ways were less common in teacher participant narratives. However, one teacher described avoiding approaching their head of department because they were 'quite taciturn'^{NQT3}. Another described seniors in their department as 'difficult', with their head of department in particular tending to be 'focusing on the negatives' (a **Critic**), 'quite [] bullish in her manner', and **Inaccessible**^{NQT1}. Other NQT participants also talked about this issue, speculating that long-serving teachers might sometimes find it difficult to relate to the NQT experience

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

but that this could be mediated if experienced staff were regularly exposed to new trainees in the school.

if you're not a training school and [] you qualify even six years ago or something, you completely forget that you didn't have the ability to plan a lesson in fifteen minutes and that sort of thing NQT5

7.3 Comparison of themes in the medical and teacher data

Also within both sets of narratives were senior staff described as **Approachable**, and stories of them acting as **Good Mentors** who made particular effort to share their time and knowledge with trainees. For instance, one F1 described their former registrar as 'very supportive' with regard to their learning.

Even if she wasn't sure of the answer she would she would give you advice about who to speak to and she also took the time to teach me and not very many of my seniors have taken time to actually teach me and I know like they are very busy but I also feel that I want to learn things and that that part of the foundation job is to be taught [] I did a set of nights with her and I'd go and see a patient and then present it to her and she would get me to talk through why I thought um of each differential diagnosis and what I was going to do about it and then gave me feedback and did assessments and things for me. FT_G_P33

Seniors and other staff were also occasionally characterised as somewhat **Parental Figures**, who looked after the new doctors and teachers. For example, one NQT talked about an older teacher who was

'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

and another described a teacher who was 'second in command' in their department as '[taking them] under her wing'

She recognised where I needed to ahh improve, um part of it is I just hate being observed, and I would go to pieces slightly y'know and I'd go, awww, just completely y'know, and English is my second language as well, so I kinda sortof suddenly, y'know i- it is quite a scary thing, but [] she- she got me through that NQT1

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Old hands and fresh faces

Doctors and teachers both expressed appreciation in their stories for those staff who were able to provide expert advice and professional judgement, by virtue their long experience in the job. These were not always senior staff, and in particular, nurses and long-serving teachers within the NQTs' subject departments could be characterised as **Old Hands** (see section 6.3.1). However, **Friendly Peers or Near-Peers** were frequently turned to by NQTs and F1s, partly due to issues of availability, but also due to perceptions of friendliness and approachability, and that it was possible to ask 'silly questions', share mistakes, and gain emotional support due to feelings of comradeship_{P6} and being 'in the same boat'_{NQT9}.

..there's a good sort of camaraderie in the fact that we're all going through the same thing you know.. we all sort a doubt ourselves at some time you know or feel unprepared at some point so- I think that's quite a good thing you know when you're when you're chatting to other colleagues and you realise you know I'm not the only one who sorta, second guesses sometimes _{MT_G_P13}

I kinda know, that he will understand a little bit better maybe than, y'know one of the other experienced teachers or erm y'know my mentor.. I think, just because he's.. a newer teacher he- he's probably got a bit of er [] a bit more sympathy for- for me if I have a rubbish day or, or whatever it's the same for him y'know he- he was the exact same.. it is really nice, just someone else being in the same shoes as you I think. _{NQT7}

Forerunners, those staff who had recently pursued the same path as the novice professionals, were characterised as being uniquely positioned to understand and give advice on practicalities that novices were 'coming up against specifically'_{NQT4},

7.3 Comparison of themes in the medical and teacher data

having good understanding of their goals, and being able to communicate what might be implicit knowledge for more senior staff.

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, erm 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

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

In the teacher narratives, there was also a perception amongst some NQTs that peers and near-peers were able to generate new ideas and insights due to being 'fresh out of training'^{NQT10}, bringing 'that sort of excitement back'^{NQT7} to what might have otherwise have become rather static departments.

Junior and allied staff

Junior staff were also talked about in stereotypical terms at times, with somewhat contradictory characterisations given by different participants. For example, some narratives portrayed them as **Knowledgeable Colleagues** or **Old Hands**, sources of expertise and experience who were valued in the workplace for advice and feedback.

*So it was like my first time in two years and I'm like oh, no. (laughter)
Yeah, but she was very encouraging. She guided me step-by-step before we went to the patient. So when we were at the preparation*

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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

Similarly, some NQTs valued the different roles that they and their TAs played in the classroom, or talked about treating TAs as equals who could be trusted to 'get on with it'.

So there was quite a lot of work happened at the beginning of the year, but now they know that they are within their rights to do whatever they fancy because they're another adult in the classroom [] I've got really good relationships with lots of the TAs, so they know, from the outset pretty much that that's okay when they're with me, that's what they're allowed to do. NQT3

Some NQTs also expressed appreciation for the specific skill sets and knowledge of allied staff in the school, such as SEND and behavioural support teams, TAs and HTLAs.

they're all full of y'know great advice they work with those kids day in day out so they're, they're always the best people to kind of go to for, for that kind of advice NQT7

Other participants characterised junior staff more as **Helping Hands**, being able to lighten the professionals' workload, rather than providing expertise. For instance, as in this F1 description of support provided by 'the girls' (nurses) on one particular ward.

they've just got everything set out for you and then you literally turn round right [] and the girls are like already done them the bloods were taken as soon as they walked in don't worry about it they're up on the system now these are the most helpful people in the [world] [] it just

7.3 Comparison of themes in the medical and teacher data

works in a really nice order now that patients come in the girls- one girl does a set of obs and things one of the nurses goes like- puts a Venflon in takes the bloods and then I go and see them clerk for the consultancies and everything gets done the patient's out again and it just works really smoothly MT_I_P21

Similarly, one NQT characterised support from their TA as a useful 'extra pair of hands'.

so we have a man that sortof comes in, within the PE lesson and just sortof takes them and makes sure they're on task and they're aware of what they need to do [] I sortof tell him what to do but I sorta say to him like if you feel you need to change it like I'm happy for you to do so [] I trust him definitely and he's been yeah he's useful, I wouldn't say he sortof 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

In these narratives, support from juniors might appear somewhat minimised through references to 'just a nurse'^{P34} or 'just a teaching assistant'^{NQT2}. Nurses were sometimes also characterised as **Pushy**, both literally and metaphorically; with references to nurses 'shoving' charts in their faces^{P21 & P8}, 'pestering' them to do tasks^{P26} or 'tugging at your shirt'^{P25}. Other narratives portrayed nurses as pushing responsibility onto F1s when they needed assistance, **Undermining** F1s' authority as new doctors and not trusting them to make decisions, or as being deliberately uncooperative and failing to follow instructions.

At the same time I had one other 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

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had to manage this unwell patient. I found it quite hard to deal with this situation because I didn't want to tell the nurse anything because you tend to get into trouble if you tell off nurses so I just went outside and got one of our usual nurses who was very good at following instructions and helping me out with this patient. MT_A_P17

This sometimes led to interpersonal conflict between the professions and perceptions of a 'nurse doctor divide'^{P35}. Similarly, teaching assistants were characterised as **Undermining Juniors** by some teachers (although not as pushy), who worked in the opposite direction to teachers. For instance, through not allowing children to 'struggle' before providing help^{NQT11}, or taking an approach to solving problems that they would not use themselves.

I do find it difficult like they're really nice and some of them say Ooh gosh I'm learning lots about this topic and y'know they're quite nice [] [they] tend to have classes that they work with a lot, so 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] gets 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

7.3.5 Stories of agency.

RQ5.4: What similarities and differences were found between the findings for F1s and NQTs, with regard to how they responded to these factors?

Box 7.4 New doctors and secondary school teachers responses

Initiating learning experiences or requesting feedback

Both new doctors and teachers described proactively seeking opportunities for learning and feedback. However, some F1 participants talked about having to 'push' for learning experiences due to the difficulty of securing time with seniors. Having the confidence to take the initiative more generally was also narrated as important by some F1s; to ask questions, request explanations and seek second opinions.

Seeking alternative sources of support

Doctor and teacher participants each described instances where they sought alternative sources of support when they were unable to find what they required. For doctors, this might be nurses or other allied staff when seniors were unavailable. For teacher participants, this included wider networks of teachers outside of school and the use of social media.

Autonomy versus hanging in there

Some doctors narrated responding to workplace constraints by hesitating to seek senior support or feeling they had to 'take control', leading to self-reliance and making decisions alone. Similarly, some teacher participants described 'hanging in there' and trying to handle difficulties alone. Other NQTs emphasised independence, autonomy and competence.

Reciprocity (helping others)

Some new teachers told stories of helping others and contributing to their departments. Although this was not identified as a sub-theme for medical participants initially, a number of instances in the narratives described how trainees and near-peers helped each other out.

Understanding ward culture & Making contacts and building relationships

'Understanding ward culture' was a sub-theme was specific to F1 doctors, due to necessity of acclimatising to new clinical placements. Some medical participants described making conscious efforts to learn the ward culture of new placements and getting to know the staff.

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Similarly, some teachers described seeking out teachers and other staff, inside and outside of school, in an effort to build professional relationships.

As can be seen in Box 7.4, new doctors and teachers showed some similarities in how they responded to the material, organisational, and sociocultural constraints of their workplace environments. For example, proactively pursuing opportunities for professional development, seeking alternative support sources, building professional relationships, persistence and reciprocity.

7.4 Using the teacher data as a lens

7.4.1 RQ5.5: What further analytical findings resulted from using the teacher data as a lens to re-examine the medical data?

Broad parallels

Although the methods of analysis have previously been described in section 4.9.4, here are highlighted some instances where collection and analysis of the teacher data inspired further reflections on the medical data, adding to the cross-professional analytical process. Such comparisons of differing settings can help one to 'step back' and gain a broader perspective of patterns in the data. Looking at the broad themes identified in section 7.3, it can be seen that overarching themes exist: the importance of informal or low-stakes opportunities for new professionals to meet and get to know senior and allied staff; how atmospheres of trust allow novices to ask questions and take sufficient 'risks' with their learning whilst also feeling able to seek support; and that external demands upon seniors and mentors may affect their ability to support new professionals in the workplace. Also, that some staff seem to naturally step forward as good mentors to teach and support novices, and that the responses of new professionals to their workplace

environments can often help them to navigate the inevitable challenges which they present. One area where comparison of these two professional datasets particularly aided analysis was in considering the balance described by participants between novice's requirement for support from knowledgeable experts, and the advantages provided by obtaining peer support from those closer to them in the hierarchy and on their training pathways (also see section 7.5 for a consideration of the different benefits and drawbacks of particular support sources).

Material factors

Such comparisons of datasets can also highlight minor themes which might otherwise be missed, due to relatively low instances, especially when analysing large datasets. It might also aid identification of sub-themes which are more analytical in nature, rather than explicitly described by participants. For instance, material factors were identified as a small but important theme in the teacher data, as NQT participants described how being physically close to official or informal mentors, bumping into other staff whilst travelling around the school, or the presence of shared facilities helped to promote social interactions. Such interactions, in turn, encouraged future support-seeking and provision. This finding inspired a re-visiting of the medical data, where it could be seen that some resemblances existed, in that support for F1s was sometimes facilitated by the existence of shared spaces.

Experiences of minority groups

Additionally, note was made of parallels between the two datasets in terms of how gender or ethnic origin might have been an influencing factor on support for some participants. For one NQT, their account was characterised by a lack of overall support, and by interpersonal conflict with their department head. It had been suggested to them that this may have arisen due to their (non-white) ethnic

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origin. Similarly, two F1 participants reflected on how being non-white might have influenced their workplace experiences of support and treatment by others. In both sets of data, it was noted that these participants tended to dismiss their own observations after making them, due to a lack of concrete evidence for the true motivations of others.

I mean my union saying maybe it's to do with my nationality as well and stuff but, I said I'm not, y'know gonna go into that really NQT1

in terms of kind of ethnicity um I've been told that the problems I have experienced could be due to that but I didn't want to believe that, cause I want to believe that we're in a different world and there is no such things as racism but I have spoken to a lot a lot of people and they all have told me maybe it could be racism, because it was me and the other doctor we were both um kind of ethnic minorities and we were treated the same way, but I I don't want to give into that (smiles) [] on the medicine ward the way we were treated were different from the other F1 who wasn't um ethnic minority and she was treated much better she was taken along to clinics and acute situations and different procedures while we were doing kind of EDDs and chasing bloods and paperwork FT_I_P10

Knowing who to approach and when

For doctors, this was identified as a minor, but clear theme, with doctors explicitly talking about not knowing who to approach for advice when initially transitioning into new placements, which created a barrier to support. They also had the additional issue of being unsure when to escalate care and ask for help, given their lack of experience in judging medical urgency and barriers such as hierarchical structures. For teachers, not knowing who to approach for support was not explicitly mentioned as a barrier to support. However, some teachers did talk about how

useful the allied support staff could be in providing information and advice, and one suggested that being introduced to these staff at the beginning would help NQTs to know that this resource was there. This observation, alongside the finding that not all staff approached allied staff for support, suggests that not 'knowing who and where' might also be a barrier for some teachers, especially in large schools which have many different departments and present limited opportunities to meet allied staff.

Tensions between autonomy and support

Comparing these two contexts also provoked further reflection upon the stories of agency identified within F1 and NQT narratives, particularly with regard to achieving a healthy balance between autonomy and support. Both sets of professionals told stories about independence and professional competence, conveying a desire to avoid being seen as struggling or a 'weak link'^{NQT4}, and that a certain level of 'risk-taking' could be helpful for learning. However, this was balanced against a need for appropriate supervision and support. For teachers, stories of autonomy might involve taking on responsibility for a task with help from others, such as one participant who talked about being given ownership of a school trip.

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. NQT3

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Alternatively, it might involve being dropped in the deep end somewhat, albeit with social support from seniors. For instance, another NQT narrated being asked to teach GCSE and A-level exam classes in their first year, which on the one hand felt 'very nerve-racking', but on the other was perceived as having accelerating their professional learning and enhanced their future employability.

When it actually came to it it's been absolutely fine, and I think I'd have preferred it this way, 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. NQT5

For doctors, autonomy may be expressed in a slightly different way, as team-working is the intended¹⁰⁴, if not always actual, norm and complete independence could generate risk for patients (also see section 5.4.1). However, there were times in the data when this balance was achieved by F1s, through requesting and being given the opportunity to go through the thought processes of making a clinical judgement themselves, whilst also having this decision backed-up by more knowledgeable experts.

The senior doctor would have taken pretty much the full history and would have written a management plan as well and I think that's a really bad way of learning because as a junior doctor you then automatically read what's written in the front page of what the senior doctor has written and they've already made a management plan [] you don't get to think for yourself, and I was speaking to a friend of mine who is a consultant [] I told him that this is how it was working and he said that's ridiculous and he said I get all my junior doctors to go and look at the patients, examine them, come up with a management plan and even start treatment and then come and see me if you're not sure and

I will go through it with them he said otherwise how are they ever going to learn if I always tell them what to do. [So] I would always say to [the registrars] do you mind if I go and see the patient first [] you know I'll come back to you once I've seen them and you can tell me if I've done this right or if you think I should do something differently and pretty much everyone said yeah that's fine. [Then] I would check with them and say you know this is what I've found this is what I would do is there anything else that you would do that I haven't put down on my list and they would say yeah I think you should do X, Y, Z or they'd say no that's fine go ahead. FT_I_P32

Support via technologies

As previously discussed in section 7.3.1, some NQT participants engaged with wider networks of teachers via past peer networks, face-to-face training events and through social media. In the original analysis of the medical data, it was noted that F1s sometimes made references to looking up information on the internet or using medical 'apps' in their narratives, although these mentions were not coded as a source of support in these data, as the focus was on informal support from others. Wider professional networks were not mentioned in these narratives, which may be a reflection of the particular research questions asked in these projects.

7.5 Overview of the strengths and limitations of support sources

Different categories of people were identified as presenting particular advantages and limitations, with regard to offering support, and these are summarised in Figure 7.3. For instance, professionals wishing to seek support from senior, expert members of staff may find it difficult due to their being physically unavailable or too busy. In some cases, they might also feel inhibited, if seniors are perceived to be intimidating, unapproachable, unable to empathise with the new professionals' situations or able to communicate implicit knowledge clearly. Other specialist staff may be a source of very specific knowledge and advice, but new professionals need to know when and where to find them and have a good understanding of their roles and what they can offer. Again, there may be the presence of professional stereotypes, which could be positive or negative. Official mentors and supervisors will ideally have protected time dedicated to providing professional development activities and for monitoring new professionals' progress. In addition, there may be conflicts between the dual roles they play in terms of support and assessment. Having opportunities to speak with mentors on a more regular, informal basis may aid novices to build better relationships with them over time, and to gain information, advice and feedback in a spontaneous, responsive way, as it is required.

Immediate juniors may be readily available, perceived as more approachable, and possess specific knowledge and experience which is helpful to new professionals. However, these were sometimes seen through the lens of negative stereotypes; for instance, being seen as pushy, uncooperative or undermining new professionals' authority. Peers and near-peers are also likely to be seen as more approachable, and may provide a safe space where it is possible to ask

7.5 Overview of the strengths and limitations of support sources

'silly questions', admit mistakes and try out fresh or 'crazy' ideas without fear of judgement. They may additionally be good sources of social and emotional support due to the shared nature of their experiences which helps them empathise. Finally, they may be able to provide 'local' knowledge of specific settings, given that familiarity has not yet been transformed into implicit knowledge. Additional support and administration teams can represent further sources of support, but may at times be unacknowledged, given that when such support is competent and efficient it may remain 'invisible' to those who benefit from its performance. Finally, there are outside sources of support. These may be family and friends, wider networks of professionals, or organisations. These sources may be able to supply differing perspectives than those which predominate in novices' specific sociocultural microclimates, or provide expert knowledge to fill 'gaps' in support which exist in those settings. However, not all new professionals have access to wider networks of family and friends, or encounter the same opportunities to form professional networks. Knowledge of specific organisational bodies which can be supportive for their profession is also required if they are able to take advantage of tailored services.

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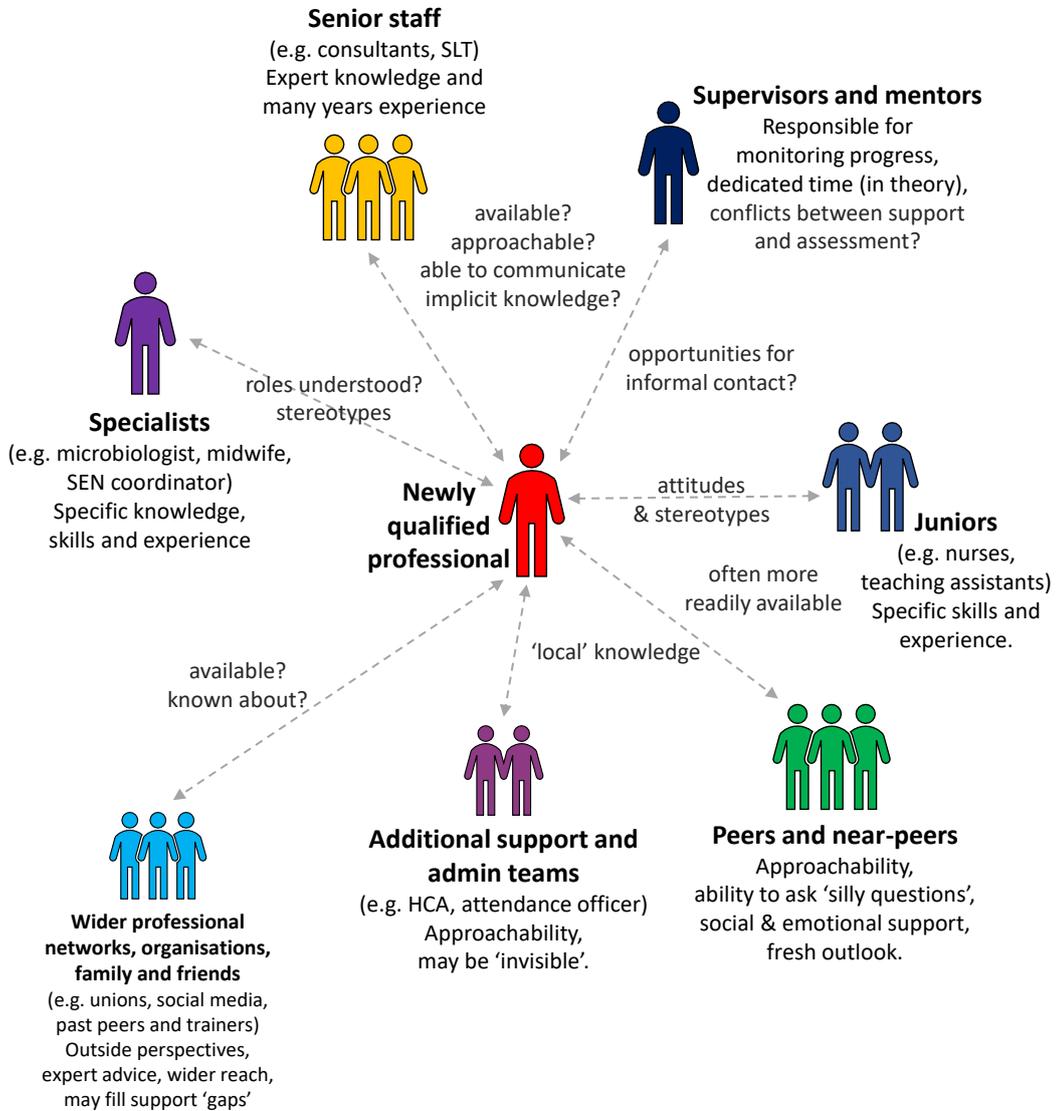


Figure 7.3: An overview of the strengths and limitations of different sources of support for newly qualified professionals

7.6 A model of workplace support for new professionals in 'hot action' environments

The model presented in Figure 7.4 was devised through summarising the over-arching factors which might facilitate or inhibit workplace support for new professionals, and the ways these factors could interact, as identified during the cross-professional analysis of two 'hot action' workplaces. This included features of workplaces which were material, organisational and socio-cultural, as well as the agentic responses of professionals themselves. Included in this new model are professional communities of practice, based on the finding that some secondary school NQTs sought support from outside their workplaces through making links with wider social networks.

Wider sociocultural, political and policy environments have also been added to this model, given the top-down influence that these inevitably have upon other features of the workplace, such as staffing and material resources. Although it may be challenging for professional workplaces and individuals to influence these environments in reciprocal fashion (except perhaps through membership of professional bodies and organisations which campaign for change), there are clearly differences in the ways that policies and guidelines are interpreted in local contexts which may be better or worse for professional support. For example, schools may respond to cultures of performativity by asking teachers to create excessive evidence of student progress¹⁰³, and in hospital settings there are differences in the ways that on-call support at night is managed¹⁰⁶. In both educational and clinical settings, the amount and nature of contact between mentors and mentees is variable^{23,368}, despite there being guidelines for how this relationship should be conducted^{37,49}. Therefore, the ways in which guidelines and policy are implemented in particular workplace contexts can have

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implications for the support of new professionals, as they make the transition from training into practice.

This model is additionally a contribution to knowledge, providing a tool which might be used in future research and for practical applications. For instance, exploring other similar hot action professional workplaces to investigate the extent to which these factors influence workplace support, testing and modifying the model as necessary. Also, as an aid to evaluating the features of workplace environments to identify areas for improvement, so as to facilitate support for early-career professionals in these contexts.

7.7 Summary of findings

From this comparative analysis, it can be seen that although the specific workplace contexts of newly-qualified doctors and teachers differ widely in terms of specific details, there are also broad over-arching similarities between them. For instance, in mapping the terrain of the workplaces described in medical and teacher narratives, we can see that local departments microcultures are central to trainees' experiences of professional socialisation, learning and support. However, wide variability between these departments within the same organisation in terms of culture are not uncommon.

Comparing the themes identified from both sets of data, many points of similarity (and some divergences) were seen between the types of support that new doctors and teachers received from others. Both sets of professionals seek or are offered help with gaining the knowledge and practical skills they need to become professionals and to acclimatise to local environments, they obtain information and advice on immediate tasks, and require feedback and

opportunities for reflection with others so as to assess their performance and gauge progress. They also obtain social and emotional support, due to the service-oriented and often stressful natures of their jobs, conducted under time and workload pressures. Some also gain practical support. Such support can be provided through formal systems, but is also frequently gained through everyday interactions with supportive others who act as informal mentors and guides. Novices are also motivated to meet their support needs through their own agency by seeking out people who can help them with their professional development and practical problems.

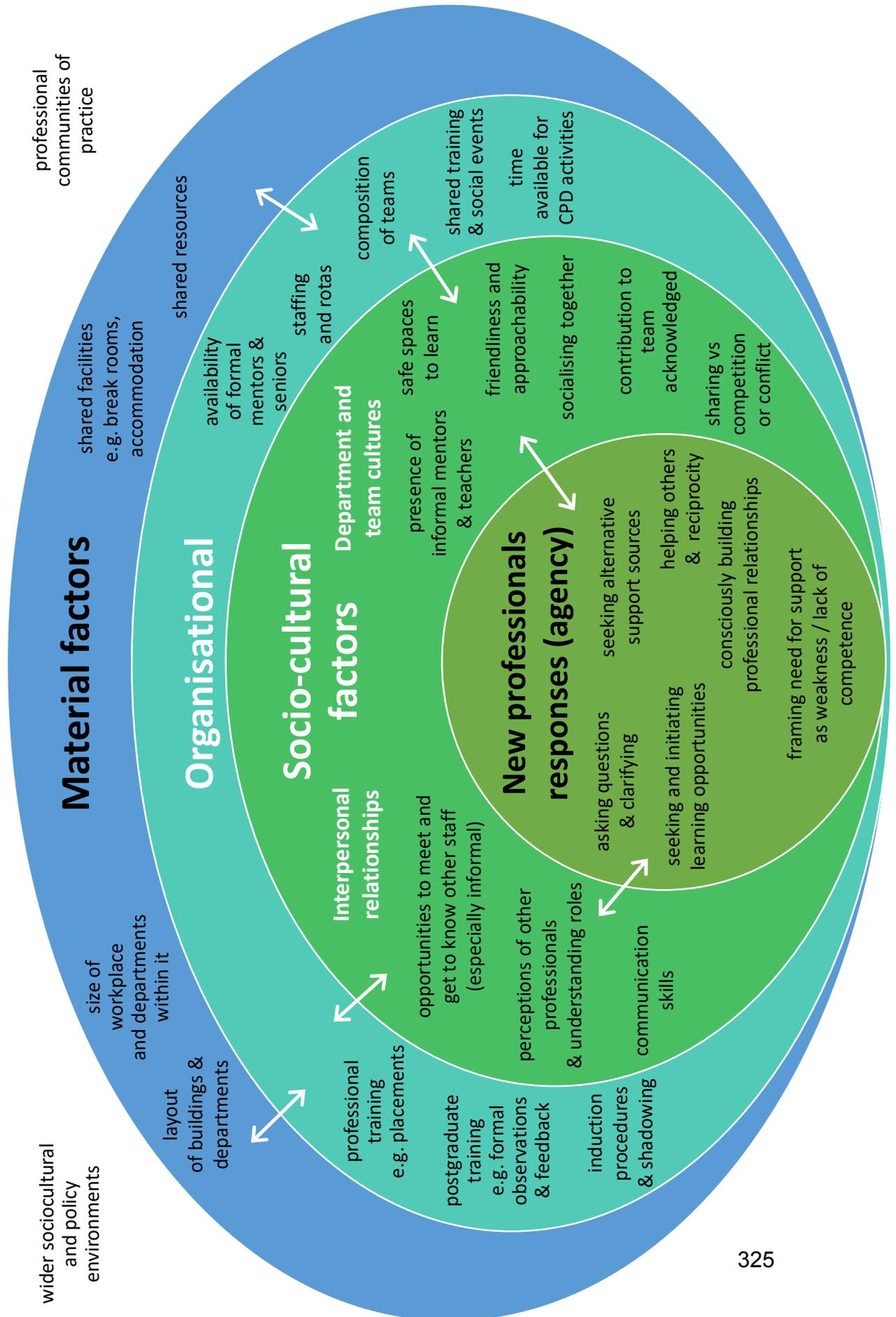
There are also many overlaps between the factors described as constraining or encouraging workplace support for these new professionals. Although the material, organisational and sociocultural factors described in participant stories were coded separately, it is clear that they interact and the lines between them are blurry. An over-arching model of workplace support for new professionals (Figure 7.4) was developed from the preceding models, in order to try and illustrate this complexity. For example, material factors such as physical layouts and shared social facilities may facilitate or inhibit staff from taking breaks together or interacting informally in-between formal meetings, therefore affecting whether opportunities exist for building professional relationships. Socialising with others, as well as formal training and induction procedures, may also influence new professionals' perceptions of other staff, including the reinforcing or challenging of existing professional stereotypes, and how well the roles of others are understood. In addition, both the local cultures of departments overall, and individual staff members' perceived approachability (especially seniors), were narrated as affecting how comfortable participants felt to seek support. In addition, some participants drew links between organisational factors such as staff shortages or time pressures and the attitudes of staff towards their learning

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and support.

The ways in which different groups might be perceived was also explored further in this chapter, though identifying professional character tropes (Box 7.3), and the strengths and limitations of different source types for newly qualified professionals were weighed up (Figure 7.3).

Figure 7.4: A model of workplace support for new professionals in ‘hot action’ environments



8 Discussion

8.1 Introduction

In this chapter, will be considered:

- The findings of a secondary analysis of F1 narrative data, on their experiences of seeking and receiving informal workplace support. These findings will be related to current literature, with some implications for future research and practice.
- The findings of analysis of new secondary school NQT narrative data, on their experiences of seeking or receiving workplace support (both formal and informal), again in relation to previous research, and with suggestions for research and practice.
- The findings of a cross-professional comparison of these datasets and the broad themes identified, with suggestions for strategies to improve support for new professionals in the future.
- A consideration of the strengths and limitations of the methodology used.
- Final conclusions and implications of findings

8.2 Workplace support for F1s

The aims of stage one of this research were to explore which professionals and medical staff provided informal workplace support to first-year trainee doctors, what types of support were provided or sought, and the factors described as

facilitating or hindering interprofessional workplace support and learning. It also looked at trainee doctors' responses to these factors in their working environments. Of note, was the extent to which pharmacists, microbiologists, nurses, and other allied professionals were sources of workplace learning and support for trainee doctors, suggesting that interprofessional support could be utilised to a greater extent to aid transitions from medical school into practice.

The support provided by others included clinical information, advice, and teaching episodes but also included knowledge of local ward cultures, practical and socioemotional support. A number of sociocultural and organisational factors influenced the seeking, provision and effectiveness of this support, including unavailability of staff, social relationships, perceptions of other professionals and their roles, and a wide variability in the local cultures of wards and departments. Also of interest, were the ways in which some trainees responded to these working environments by taking the lead, asking questions, pushing for support and pursuing their desire to learn. However, with interventions to overcome some of the barriers present in these medical environments, all new doctors might feel better able to take the initiative with regard to their support and learning needs.

8.2.1 Stories of support by F1s

It has been acknowledged in the literature that allied professionals are often overlooked as valuable sources of support and supervision³⁷⁴. However, the findings presented here echo past research that nurses and pharmacists can be a valuable resource for trainee doctors⁵⁵⁹, and that more formal schemes of shadowing or provision of feedback to F1s, such as trialled previously^{406,560} could help make the most of these experienced professionals' knowledge. That pharmacists, microbiologists and nurses experience slightly different organisational constraints may also mean that they are more accessible, at least in some medical departments.

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In addition to what might be thought of as the mainstays of interprofessional support, such as help with developing clinical decision-making skills, identifying errors and giving feedback on performance, it is clear from this analysis that support regarding local ward cultures, practical knowledge of new wards, and social and emotional support are also significant to new trainees. The emotional well-being of trainee doctors has previously been highlighted as crucial to retention of staff and avoidance of burnout, as well as impacting upon patient care⁴⁰⁰, with good team 'morale' helping to mediate the stressful effects of difficult working conditions⁴². Feedback to trainees has also been identified as important to professional development⁵⁶¹. As seen in these data, feedback can play a dual role, not only in helping trainee doctors to improve critical thinking and self-reflection, but also as an indirect source of social and emotional support. Unfortunately, feedback is frequently felt to be sparse within medical environments; in particular a lack of feedback directly following observation of practice, a method of learning reported to be valuable by the F1s in our data and those in past research⁵⁶².

8.2.2 A provisional model of factors influencing workplace support for F1s

The model presented in Figure 5.1 was created to summarise the wide array of factors narrated by participants as influential upon their informal learning and support from others, and how these factors might interrelate. Elements of this model could be tested separately, using interventions designed to change individual factors such as interprofessional perceptions, whilst acknowledging that changes to one aspect of working environments will often have consequences elsewhere. For example, constraints of time and availability may influence supportivity of learning environments, and past research has highlighted how time and workload pressures can inhibit resolution of interprofessional conflict⁵⁶³. These factors of their environments may then encourage or inhibit trainees' capacities to enact agency,

by seeking support and professional development opportunities in collaboration with others. Conversely, trainees may influence their environments via their own responses; for instance, by befriending nurses and other allied staff, seeking out good teachers, and asking questions.

8.2.3 Availability of staff

One organisational factor which inhibited support for F1s was a lack of availability of senior staff; due to workload, physical absence from the ward, gaps in the rota and out of hours working. Such factors are situated within wider policy contexts, such as medical staff shortages²³ and broader changes to working practices¹⁰⁵, and therefore may be difficult to address at a local level. Out-of-hours periods were times when F1s narrated feeling most unsupported. These included such times as weekends and bank holidays, but hospital night shifts were particularly highlighted as times of uncertainty, due to reduced staff operating at night and F1s often having to cover unfamiliar wards. Although senior support was available at night via on-call systems, some F1s struggled with knowing when to ask for advice or escalate care. Such dilemmas are to be expected for novice professionals, given that they may have difficulties knowing which features of a situation are most salient, a skill which comes through prolonged accumulation of practical experience^{298,299}. Night shifts have been previously noted in the literature as a time of heightened emotions for new doctors⁵⁶⁴, when they are more likely to commit serious errors¹⁰⁶. Moves have been made to improve out-of-hours working, through initiatives such as The Hospital at Night project¹⁰⁶. This project included the introduction of specialist evening teams, who tried to ensure patient stability before leaving; a clearly outlined escalation policy 'which indicated when critical care teams should be contacted; and used senior nurse practitioners as a central contact for on-call systems due to their in-depth knowledge of hospitals and staff. Such 'whole-systems approaches' have potential to improve patient safety, whilst

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avoiding putting foundation trainees in situations which feel 'out of their depth'. Another factor which appeared to influence senior availability in these data was the type of clinical setting; for instance, senior consultants were described as being frequently unavailable in surgical wards, due to performing operations. In such cases, it may be helpful for F1s to know who else they can turn to with urgent questions, and again this might be communicated as part of local ward inductions.

8.2.4 Local learning cultures

Sociocultural factors were also described as greatly influential upon informal learning and support for trainees. The broad finding that local cultures of support appeared to vary widely between different departments and wards even within the same clinical settings, suggests that the level to which trainees are supported is left somewhat to chance rather than being a consistent feature of medical environments. That consultants and other seniors display differing attitudes towards trainee learning has been previously noted⁵⁶⁵ but it is clear that trainees are keen to seek out good role models from whom they can learn. Such findings suggest a need to reflect on how we can support seniors to be better teachers within medical environments. There is also some scope for other medical professionals to perform these roles more frequently, either via formal schemes or informally during working practice. In addition, it may be possible to raise senior clinicians' awareness of the potential for interprofessional informal learning opportunities within the medical workplace, so that they may 'signpost' these to new doctors⁵⁶⁶. In particular, research evidence suggests that participation in interactive and practical activities are more effective educationally than formal instruction in changing doctors' behaviours which affect patient care, whether this be during medical training⁵⁶⁷ or subsequent professional development⁵⁶⁸. If F1s are to develop the skills they need to become independent practitioners, they need to do more than follow instructions and pass formal competency assessments, but also to engage

in critical thinking and reflection with experts. This highlights the importance of experienced others initiating opportunities for junior doctors to learn on-the-job.

8.2.5 Stereotypes and understandings of interprofessional roles

Regarding perceptions of other medical professions and their roles, we know that stereotypical views still persist and often pre-exist medical training^{390,569,391}; for example that nurses are more caring and have better interpersonal skills but are less competent than doctors, or that doctors are arrogant^{570,571} but are more academically able⁵⁶⁹. Such attitudes can reduce interprofessional communication or lead to conflict, with implications for patient care⁵⁷². Conversely, unrealistically high expectations of others may have its own consequences; for instance, if junior doctors are supposed to possess greater knowledge than nurses then their decisions may remain unchallenged⁵⁶⁹. Such attitudes might also help explain the finding that some trainee doctors saw nurses as suitable sources of emotional support but not as experienced medical professionals, or that senior medical staff were too intimidating to approach. These attitudes may derive from historical and gendered divisions of labour in medicine¹⁵¹. They may also arise from self-categorisation, with trainee doctors developing professional social identities relating to, not just who they perceive *themselves* to be and to do, but also in contrast to who they are *not*³⁸⁹. It was striking within the data how much support nurses did provide to trainee doctors. However, the power differentials between these professionals may encourage nurses to communicate in less direct ways⁴⁰³ presenting an additional social barrier for trainees who may not perceive nurses as valuable sources of support.

Most research on professional stereotypes has focused on this doctor-nurse dynamic. A few studies, however, have explored interprofessional perceptions

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of pharmacists⁵⁷³, physiotherapists⁵⁷⁴, midwives and social workers⁵⁶⁹, and perceptions of new doctors by allied professionals⁵⁷⁵. Less is known on how trainee doctors themselves view various allied professionals such as midwives, social workers, occupational therapists and so on. Challenging professional stereotypes and understanding the value and contribution of other professionals may be key to collaboration between professionals and developing identities which go beyond that of individual professional, to feeling part of an interprofessional team^{576,577}. Therefore, gaining an understanding of postgraduate doctors' perceptions of these allies could assist development of interventions for medical school and early clinical training. The finding that peers, and others closer to F1s in the hierarchy, were seen as less threatening suggests a need to overcome the barrier of 'lack of approachability' to some seniors to enhance interprofessional learning, whilst retaining their authority. The many stories of seniors as 'good mentors' demonstrates that this balance is possible to achieve. Additionally, peers and near-peers could be utilised more effectively as peer-assisted learning (PAL) within the workplace, as currently implemented in some medical schools⁵⁷⁸.

Studies which have tried to overcome interprofessional barriers through promoting inter-group contact during IPE have produced mixed results^{579,580} perhaps due to factors such as duration of programmes and how contact is facilitated^{581,582}. However, the idea that IPE programmes will influence subsequent interprofessional collaboration tends to rest upon two assumptions. First, that diverse professions learning together, under specific situational conditions (such as equality of status and shared goals) facilitates collaboration, based on the contact hypothesis^{583,394}. The second assumption is that the learning gained in one context (IPE) is transferable to another (clinical practice). With regard to the former, we know that increased contact with other professionals during IPE can sometimes actually exacerbate in-group out-group differences and increase

stereotyped views of other professional groups. Therefore, until the factors which underlie successful IPE programmes are fully understood (the *how*, not just the *if*⁵⁸¹), they may not achieve their intentions. With regard to the latter, we know that organisational knowledge is often embedded in particular contexts and does not always transfer as intended, particularly knowledge which involves ‘interactions among people, tasks, and tools’^{584p. 150}. This is because newcomers tend to become enculturated into the social norms of the group, including attitudes towards others⁵⁸⁵. Therefore, knowledge of other professional roles gained during medical school IPE programmes can persist into postgraduate practice, but changes in attitude may be more resistant to change, requiring ‘sustained contact’⁵⁸⁶. This suggests that it may be helpful to extend the length of IPE and IPL modules during training. Alternatively, such programmes might be introduced into postgraduate clinical settings for newly qualified doctors and other healthcare staff, to allow better transfer of attitudes and knowledge. In addition, the teaching of interprofessional communication skills to medical trainees, not just those relating to patient communication⁵⁸⁷, could be incorporated into postgraduate education. The trainees in our data described how developing these skills over time helped them to obtain support and information more effectively, but a specific focus on interprofessional communication early on might help to bridge these differing ‘professional cultures’. In addition, informal interactions between professionals were identified as important in these datasets ^{8.2.6}, echoing past findings that informal aspects of IPE programmes may be key to changing attitudes⁵⁸¹. Therefore, in addition to proposed changes to formal postgraduate curricula, it is further suggested that avenues for facilitating informal interactions between different professionals should be explored within healthcare settings.

8.2.6 Interprofessional relationships

In these data, trainees talked about how getting to know other professionals, making friendships, and developing respect and trust were key to improving interprofessional collaboration, and this supports previous findings⁵⁸⁸. However, the nature of frequently changing placements and rotas structures can hinder this⁵⁷², and both in these data and elsewhere the provision of inductions is described as inconsistent¹⁸. Recent research has highlighted how inductions are important for introducing trainee doctors to the local practices, procedures and protocols of their new placements. Expectations that newly qualified doctors will simply 'pick up' knowledge regarding practical aspects such as IT and paperwork⁵⁸⁹, combined with confusion over role expectations³¹² may slow down integration into their new working environments and teams. In addition, the new organisational contexts of medicine mean that we have moved away from an 'apprenticeship model' of doctor training. New doctors are generally working shorter hours, in accordance with the European Working Time Directive (EWTD), but consequently they may be working with different people every shift and have sparse contact time with consultants⁹¹. This fragmentation of teams is based on an implicit assumption that trainees and other professionals can act as interchangeable cogs in interprofessional teams⁵⁹⁰. However, neglecting the relational aspects of team can have consequences for both patient care and job satisfaction⁴³, with feelings of belonging contributing to the effective workplace learning of trainee doctors⁵⁹¹. Some F1s in these data described how informal ways of getting to know others, such as shared accommodation for trainees, helped improve communication between them. Therefore, encouraging opportunities for informal interprofessional contact is another avenue which could be pursued, perhaps via shared facilities such as mess rooms, or organisation-wide social events.

8.2.7 Stories of agency and constraint by F1s

What was also striking in these data, was the tenacity of many trainees as they described their efforts to navigate, manage and overcome the social, cultural and organisational constraints of their working environments. Participants narrated how they initiated learning opportunities, asked for clarifications and explanations of decision-making, and sought alternative sources of support when seniors were unavailable. Medical workplaces can provide numerous opportunities for learning and feedback from a variety of sources⁵⁹². Personal confidence has been identified as one factor which can affect whether new doctors pursue opportunities to learn through the workplace⁵⁹³, and some F1s in this study felt that their confidence helped them in this respect. However, professional confidence is not merely a personal quality but also an outcome of effective learning⁵⁹³ which arises from the right combination of challenge and support⁵⁹⁴. In addition, the degree to which clinical workplaces are perceived as sites of learning by foundation trainees may influence their ability to recognise opportunities for learning and feedback from others when they occur. Therefore, the value of informal workplace learning is something which could be communicated to both trainees and trainers, during medical school and foundation training phases. In other F1 stories, trainees described responding to the constraints of their environments by feeling that they had to 'take control' or make decisions alone. This is unsurprising in medical contexts, as both educational experiences and medical cultures can convey the idea that rewards come with knowing the 'right' answers and having perfect performance. Foundation trainees may also feel inhibited from asking questions or for advice if they perceive that supervisors will think less of them for doing so⁵⁹⁵. Therefore, a normalisation of support-seeking is required across medical cultures, if we want F1s to avoid taking unnecessary risks due to perceived threats of 'losing face'.

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According to the theory of structure and agency⁴³⁴, we are neither merely individuals with fixed capacities, traits and personalities, able to exhibit *agency* in the world, nor are we wholly shaped, guided and constrained by surrounding social structures such as norms, rules and rhetoric. A recent trend in medicine has been to run programmes to increase personal resilience in students. However, such programmes have tended to rest on assumptions that resilience is a capacity which resides solely 'within' us, and have therefore been critiqued for shifting responsibility for wellness solely onto individuals rather than seeking to understand systemic, underlying causes of stress⁵⁹⁶. A more nuanced view of resilience emerging from teacher education literature, has been to see the ability of individuals to demonstrate resilience, and the enactment of agency itself, as inextricably entwined with the surrounding social structures which both support them and provide appropriate challenge⁴³⁵. Such a balance seems particularly important for key medical transitions such as postgraduate doctors' first clinical placements, which have been described as 'critically intensive learning periods'¹⁸. Given evidence to suggest that 'patient care suffers when trainees are unsupervised even though some trainees claim to benefit from the experience that lack of supervision gives them'³⁰⁸, a lack of appropriate support from more knowledgeable others in the early stages of training presents a risk to patient safety³⁰⁷. Furthermore, as rising numbers of junior doctors experience poor mental health and burnout and leave medicine, it might be argued that to see this as a weakness of individuals is to overlook the stresses and barriers inherent within organisational and social systems, and the ways these might be reduced. Expanding the degree to which different medical professionals support and learn from each other in the workplace, especially during key transitions, is one way that this could be achieved. Providing a supportive environment for trainees may also give them the confidence to act agentically, to seek out informal opportunities for support and learning in the workplace.

On the other side of the coin, it has been argued that new doctors can be constrained in their learning if they are not allowed opportunities to learn in authentic clinical situations¹⁹⁴. Cross-cultural studies have highlighted how, in the UK, transitions from medical student to foundation training can be somewhat abrupt²³⁹ rather than encouraging 'progressive independence'⁵⁹⁷. Although a protective stance towards medical students is intended to enhance patient safety, such a 'kid gloves' approach has potential to put patients at greater risk if F1s are suddenly required to undertake activities such as independent prescribing⁵⁵⁹. Awareness of their own strengths and limitations with regard to knowledge and competency is in itself a key skill which doctors need to develop, so that they can make decisions around when to seek support and when to act alone^{598,387,316}. During this period however, the level to which trainee doctors need to be supervised may be a judgement call on the part of supervisors, depending on individual competence and clinical situation³⁷³. In addition, a gradual withdrawal of supervision is desirable³⁷³, as opposed to a 'sink or swim' approach, which might compromise both confidence of the trainee and patient safety.

8.2.8 Implications for future research on workplace support for F1s

To further explore interprofessional support as experienced from different vantage points, future research might examine which professionals support first-year trainee doctors within clinical placements and the factors which influence support, using primary data collected from first-year trainees and a range of other allied medical professionals. Studying a variety of professionals within the same workplace setting could uncover the supportive roles of allied professionals from their own points of view, promote understanding of contrasting professional roles and experiences, and the interdependent nature of these roles when working

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towards common goals. Such narratives could be generated as per the previous methodology, using interviews and audio diaries, but might also be elicited by direct observations or video-recordings of practice¹²⁶.

The nature of successful IPE programmes also needs to be better understood so that such interventions are cost-effective and avoid inadvertently reinforcing professional silos. For instance, research might look at whether implementing IPL and shadowing programmes in postgraduate clinical settings, is more effective at increasing role understanding and breaking down professional barriers than IPE in medical school, due to contextualisation in specific workplace contexts.

8.2.9 Implications for practice: supporting F1s

To summarise, some implications of this analysis for policy and practice are that

- First-year postgraduate doctors require greater support during orientation to every clinical placement (not just their first one), with better consistency of induction provision, perhaps utilising the experience of nurses or near-peers on wards given their on-the-ground knowledge of local procedures.
- Interprofessional learning programmes could be extended into postgraduate training, to aid transfer of knowledge into local contexts.
- 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, help challenge stereotypes and improve interprofessional communication.
- Informal opportunities to get to know other medical staff, such as shared facilities or social events may help to overcome some of the sociocultural barriers to support.
- Peer-assisted learning (PAL) could benefit postgraduate doctors in their first

year, given that peers and near-peers are regarded as: more approachable, to have a better understanding of their current experiences, and able to deliver information at the 'right level'.

- Trainees greatly value learning from senior staff on the wards, but the existence of a medical culture where trainees are treated as 'dogsbodys' rather than active apprentices still exists in some medical 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.
- Learning to communicate with other professionals, in addition to communicating with patients, is a skill which might be incorporated within medical curricula.
- Whole-system approaches to improving night-shift working would support foundation trainees and prevent them being placed in high-stress situations where they may feel under pressure to take decisions alone.
- 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 interprofessional learning episodes during everyday practice.

8.3 Workplace support for NQTs

The aims of stage two of this research were to explore which people provided workplace support to newly qualified secondary school teachers, both formal and informal; what types of support were provided or sought and how this was done; and the factors described as facilitating or hindering support. It also looked at NQTs' own responses to these workplace factors. The support provided by

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others included information and advice on the teaching role itself; knowledge of school cultures, policies and procedures; interactive collaborative activities to support professional development; observations and feedback; practical support in the form of resource-sharing; direct support for students (narrated by some participants as supportive for them as teachers); and socioemotional support.

A number of sociocultural and organisational factors influenced the seeking, provision and effectiveness of support for NQTs. One key finding was the influence of local departmental microclimates upon teachers' capacities to gain support, an aspect which perhaps should be taken into account when trying to change school cultures as a whole. Availability of senior staff and mentors was also important, with teachers appearing to especially value opportunities for ongoing informal contact, as this aided spontaneous forms of support which could respond to the needs of the moment. Perceptions and use of allied staff as support sources was another theme identified. Differences were seen in the extent to which teachers obtained help from support staff, and in their attitudes towards working with teaching assistants, suggesting that better understanding of these roles could be promoted. There was also wide variation in whether teacher participants utilised support outside of their subject departments, with some participants describing benefiting from wider social and learning networks which extended across their school and beyond. Finally, stories of agency were identified in the narratives. Some NQTs described seeking learning opportunities from others, finding alternative sources of support to fill 'gaps', or making efforts to get to know other staff to build supportive professional relationships. Others emphasised their autonomy and the ways in which they could support others or contribute to their teams. Also in the narratives were some stories of perseverance in the context of insufficient support.

8.3.1 Stories of support by NQTs

The NQTs in these data narrated receiving much support from experienced others in the workplace, and this appeared to be much valued by teachers, whether provided by the formal mentors allocated to them as part of the NQT induction process or informal mentoring by other teachers. These were usually teachers working within their departments, including members of the senior leadership team (SLT), 'old hands', or those who had been in their shoes one or two years previously (NQT+1s or +2s). These teachers provided information and advice on the teaching role itself, especially subject-specific knowledge such as how to teach particular topics, as well as local knowledge of school environments, such as how to input data. They also shared resources with NQTs, which saved them time in planning. Some support was given in the form of collaborative and interactive activities, such as co-planning, or in the form of feedback. Some teachers also provided much support which was socioemotional in nature, providing a space in which to share feelings and experiences regarding everyday events or stressful incidents. This variety of support types may help smooth NQT transitions into independent practice. For instance, collaborative activities with other teachers such as planning has been shown to reduce intentions of teachers to move schools or leave the profession³⁶⁵, and socioemotional support for teachers increases their job satisfaction and promotes better mental health¹⁴⁸.

Allied support staff were cited as another beneficial source of information and advice by some NQTs, who gained support with specific topics, such as strategies to use when teaching children with SEN. Behaviour support teams and TAs also provided direct support to students relating to difficult behaviour or their emotional wellbeing, which was described as highly supportive by several NQTs. This makes sense given that amongst the concerns of beginning teachers, classroom management is consistently high on the list⁵⁹⁹. Information and support

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regarding additional needs may be vital for new teachers, as they frequently feel that ITT does not adequately prepare them for inclusive education^{600,601}, although their confidence in this area may have improved by the end of the NQT year⁶⁰². These perceptions of lack of preparedness for inclusion have not been entirely overcome, despite knowledge about SEN being incorporated into ITT standards since 2002⁶⁰³, and this observation was echoed in the data^{NQT9}. Furthermore, whilst some ITT programmes have aimed to improve their provision of SEN training, for instance via collaborations with SENCos⁶⁰⁴, it has been suggested that adding yet more content to already overloaded curricula may be difficult for some training providers⁶⁰⁵. In particular, school-based programmes and one-year PGCEs may have less time available to cover SEN topics (compared to BEd routes)^{606,607}, although perhaps benefit from increased contact time with children with diverse needs in the classroom⁶⁰³. The narratives analysed here also indicated that not all new teachers seek out allied staff for advice in their schools or are aware, at least initially, of what these staff can offer. Given these issues, SEN topics could be added to INSET programmes for NQTs, and school inductions expanded to include information about their local SEN provision. This could help ensure that teachers are aware of which staff can be approached for information on specific topics, and help break down social barriers which might inhibit them from making an approach.

Fewer narratives mentioned direct contact with professionals from outside of their schools. Just one participant related having received advice from a speech and language therapist and an educational psychologist, who advised on strategies to help specific children in their classes. Most contact with these professionals was instead mediated through SENCos and SEND (special educational need and disability) departments, who in turn could be sources of this information. Given the small sample of NQTs in this research, it is difficult to draw

firm conclusions regarding how common this practice is, and whether having direct interprofessional communication might sometimes be more beneficial. However, the limited research which has been conducted on contact between classroom teachers in mainstream schools and allied professionals, such as speech therapists, occupational therapists and social workers, suggests that meetings with these allied professionals are subject to constraints of time and high workloads^{412,413,414,415}.

One NQT had benefited from the ongoing support of a mindfulness coach who regularly visited their school. They were enthusiastic about this provision, feeling it was highly useful in terms of recognising and managing their emotions, so reducing stress. There are a number of studies which suggest mindfulness and yoga techniques can reduce occupational stress and the physiological indicators of stress in teachers⁶⁰⁸, so these are potentially useful services to offer for new teachers. This, perhaps with the proviso that they be voluntary activities, given that 'personal decision[s] to engage' are an important component of success⁶⁰⁹. Moreover, it has been argued that whilst school wellbeing initiatives and education can be helpful for new teachers, taken in isolation these are insufficient to support good mental health if not also combined with measures to tackle underlying systemic pressures, such as unnecessary workload or cultures of performativity^{610,611}.

Two NQTs reported receiving advice or counselling support from a teaching union, and another stressed their importance as a source of information on teachers' rights. Other teachers indicated not knowing much about what unions had to offer, and information on these services could be provided as part of ITT or postgraduate training programmes, given that in addition to legal and employment advice, some also offer NQT-specific training and development

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opportunities, access to telephone help-lines, and signposting towards further support sources^{612,613,614}. A few teachers also described gaining information, advice or socioemotional support from friends and family outside school, some of these being teachers themselves. There is little research looking specifically at support provided by family and friends to NQTs. However, international studies on teacher wellbeing noted that new teachers frequently receive emotional support and advice from family and friends²⁰, which can be 'integral' to their emotional wellbeing during difficult times⁶¹⁵.

Finally, there were stories where NQTs related gaining support from wider networks of teachers. These teachers were accessed via NQT conferences and training programmes, through links with past peers from initial teacher training (ITT), and via social media platforms such as Twitter and Facebook. Teachers valued the opportunity to meet other teachers face-to-face, to share experiences and ideas. Such building of new teacher networks could therefore be encouraged through allowing new teachers the time and resources to attend regional training and conference events. A couple of participants were also enthusiastic about the value of social media in connecting teachers with wider educational networks, seeing them as ways to fill gaps in the support that they experienced within school; for example, knowing how to approach particular topics, sourcing resources, or gaining inspiration and fresh ideas. This supports previous research showing that many teachers derive positive benefit from participation in 'online communities'. Such forums can provide opportunities for professional development, give access to subject-specific knowledge, facilitate sharing of experiences and emotional support, and be a source of inspiration and personalised guidance^{352,616,617}. However, some NQT participants also observed that online platforms could be a source of distraction and may fuel negative discussions. These participants appeared to use the internet in a more utilitarian way; accessing resources,

ideas, and information sources (such as podcasts), without engaging directly with other professionals online. Similar drawbacks have been noted previously by members of online communities; that they can potentially save time or waste it, and that interpersonal misunderstandings sometimes occur³⁵². There are also likely to be individual differences in attitudes towards and comfort with using social networks more generally, which influence the ways that new teachers use online resources^{618,619}. However, given that online contact with others is becoming more and more common, it may be helpful for teacher trainees to be made aware of the variety of resources available, and perhaps to begin building online communities with peers during ITT courses, to reduce risk of isolation later on⁶²⁰.

8.3.2 A provisional model of factors influencing workplace support for NQTs

The model presented in Figure 6.1 summarises the various factors narrated by participants as influential upon their workplace support. As per the previous model^{5.1} interventions might be developed which target individual factors, whilst bearing in mind that factors may interrelate. For example, perceptions of allied support staff might be positively influenced through: expanding school inductions to include introductions to allied staff; joint training or social events; access to shared staff rooms, and so on. The multiple material, organisational and sociocultural features of workplace environments may also support or discourage agency on the part of new teachers; for example, the perceived friendliness and supportivity of departments may encourage or inhibit NQTs from approaching others for support or in pursuing opportunities for professional development. Trainees may also influence their workplace environments via their own responses; for instance, by bringing new ideas to school leaders about how to improve support for NQTs, or collaborating with peers in informal, reciprocal networks to share resources and

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feedback.

8.3.3 Material factors

Material factors such as the size and layout of schools and departments were minor sub-themes in these data, which however may be highly significant for some new secondary school teachers. In several narratives, NQT participants related how they tended to gain support from those teaching staff who were easily visible or accessible, by virtue of their teaching in the same or nearby areas. Therefore, any factors which cause physical separation from the rest of the school may affect new teachers' capacities for obtaining support and for participation in collaborative activities. Time spent in shared office space and staff rooms was narrated as valuable by a number of NQTs, due to the informal support gained through naturally-occurring conversations arising in breaks, lunch or planning time. Such interactive learning moments have been described as 'the in-between', summing up both the way in which our identities as workers and social beings intersect, and the significance of providing 'spaces' in which informal contact can take place⁶²¹. 'Congregational spaces' such as teachers staff rooms, have been described as key sites for professional knowledge sharing amongst teachers, which can facilitate informal mentoring by 'veterans'⁶²². If felt to be inclusive, they may also constitute safe spaces where NQTs can experience togetherness and belonging, as they reformulate their identities as professionals rather than trainees⁶²³. However, the extent to which staff congregate in such areas may depend on local school and departmental cultures, physical proximity and the time they have available⁶²⁴. In addition, not all staff-room cultures are reported to be positive. For instance, in those schools where teachers compete with each other for 'prestige', this can have negative implications for new teachers' confidence⁶²⁵, and this appeared to be the case for one of the participants in this study. Therefore, shared spaces may be helpful only in those

circumstances where school and departmental cultures are healthy, and this is discussed further in section 8.3.7.

The availability of shared department resources was also coded as a material factor in these data, whether that existed in the form of shared folders on computers, online subscriptions, in filing cabinets, or physical pieces of equipment residing in cupboards. As has been previously noted in research, not having access to sufficient, high-quality resources can increase new teachers' workloads. This sub-theme also had social and organisational aspects to it however, as staff attitudes towards sharing resources may affect its availability⁶²⁶, and good inductions will orient new teachers to where resources can be found⁶²⁷.

8.3.4 Availability and effectiveness of senior and mentor support

As seen in these data, where mentoring relationships are positive, this can be highly supportive for NQTs^{364,192,361,363}, and most of the teachers in this sample reported receiving frequent support from both their subject mentors and NQT advisors or coordinators. This reflects evidence of generally positive relationships between NQTs and their subject mentors³⁶⁸ (also known as induction tutors or mentors). However, if mentoring is characterised by conflict, lack of approachability or availability, then NQTs can be left feeling isolated³⁵⁹ and therefore it is the quality of this relationship which is key³⁶⁶. Also mentioned in these data was that overarching issues of time and workload had the potential to impede mentors' capacities for support provision³⁶⁸. Although school leaders might favour allocating senior staff to these roles because of their many years experience, if mentors struggle to balance competing demands on their time due to multiple responsibilities, they may not be the best choice of support. Instead, staff could be selected who have the right mix of time, enthusiasm and skills to

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devote to the role³⁶⁹, as well as empathy for new teachers' experiences, which may sometimes mean teachers who are closer to NQTs in their career pathways. A couple of the participants in these data also reported a preference for feedback which was separate from assessment contexts. This echoes research which has problematised the dual roles that induction mentors are asked to perform, being both assessor and main source of support⁶²⁸. Such conflicts has the potential to lead to 'judgementoring', which impedes truly supportive forms of professional guidance and support²⁶⁶. Better training for induction tutors may help raise awareness of these dilemmas and give guidance on how to manage them in practice²⁶⁶. In addition, it may be possible to offer alternative sources of support; for example, independent 'coaches' who concentrate solely on professional development activities, offering new teachers a 'safe space' in which to receive feedback and engage in reflective discussion. One such trial reported that coaching by independent mentors from HE institutions allowed NQTs to 'let off steam' due to a lack of fear of judgement whilst encouraging a re-focus on the positives, so increasing their resilience to stressful features of their work⁶²⁹.

The teachers in this sample also conveyed their appreciation for ongoing informal contact with mentors and senior staff. Unscheduled, informal 'learning conversations' which take place between beginning teachers and more experienced guides can be responsive to events and dilemmas of the moment, and these regular interactions can themselves assist in the building of positive relationships between mentors and mentees^{630,370}. Such conversations may occur in the 'in-between' spaces of time and location; during breaks, after school, in the corridors when moving between learning spaces. The importance of these types of contact might be communicated to mentors during training, given that otherwise the 'formal' may be privileged. However, as per supporting professional relationships more generally within schools, there may be multiple opportunities

to facilitate daily contact. This might include the provision of shared social spaces, departments taking breaks and lunches together, or shared social or training events depending on local contexts. Frequent, informal contact such as this could help support open communication and the development of genuine friendships, which naturally promote support seeking and provision.

Heads of Department, and other senior staff such as heads of year, faculty or house, were also mentioned frequently in participant narratives. Understanding how helpful their support might be for NQTs could be communicated to senior staff, encouraging them to go out of their way to 'check in' on new staff and demonstrate their availability as support sources.

8.3.5 Inductions and ITT training routes

Inductions in these data were described as variable between schools, with regard to start dates, amount and frequency of training, and the degree to which activities were formal or informal. One participant felt that induction programmes could be more responsive to individual NQT needs rather than a one-size-fits-all approach which could lead to repetition, and it seems that some schools do adopt a more flexible approach towards NQT training and support³⁶⁸. This might be more efficient time-wise, given that NQTs who have pursued university or school-based routes may have different gaps in their knowledge and experience, and therefore have different training needs. Some NQT participants, particularly those on school based training programmes, had worked previously within their current school. These participants reflected that this had led to smoother transitions, as they required less orientation to the local environment. Also, having had opportunities to build professional relationships meant they felt more part of the team. This advantage might be replicated in some form for other new secondary school teachers, perhaps through shadowing or co-teaching for a week in the summer term before

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beginning work in their new schools. This could also provide an opportunity to develop relationships with new mentors.

8.3.6 Perceptions of teaching assistants

As previously noted in the literature, some NQTs narrated negative attitudes towards having teaching assistants working in their classrooms. For example, some stories conveyed perceptions that the actions of TAs were undermining or unhelpful, coming into opposition with their personal aims and strategies as a teacher, such as allowing children to struggle before offering help. Other teachers reported positive working relationships with TAs, which encompassed good communication, collaborative team-working and mutual respect. Negative beliefs about working with TAs may arise from a number of sources, including adverse experiences or no previous contact with TAs, a lack of knowledge about their role, or stereotypes and stories communicated informally during ITT. Therefore, understanding how these beliefs arise may be an area for future research. However, it has been noted previously that tensions between these two professionals may partly derive from role conflicts, due to an expansion of TA responsibilities and increased levels of training^{430,431,388} combined with perceptions that teachers' professional status has deteriorated^{117,118}. Given that teachers also struggle with high levels of paperwork and administration tasks, they may feel they need help in these areas - tasks which TAs may traditionally have assisted with⁴³². One NQT participant in this study attributed their good working relationships with teaching assistants to having worked previously as a TA themselves before beginning teacher training. Increased understanding of the role of TAs in classrooms, and of how teachers and teaching assistants can work together effectively, might be achieved through the incorporation of brief shadowing programmes into ITT programmes, as has been piloted for F1 doctors and HCAs⁴²⁷.

8.3.7 Departmental and school cultures

A key theme identified in these data was that where positive school and departmental cultures existed, this appeared to facilitate the seeking and obtaining of workplace support for NQTs. There may be a natural tendency for departments to develop their own, somewhat separate micro-cultures⁶³¹, given shared aims and resources, and higher levels of contact and collaboration between members. Departmental cultures may be of particular importance for secondary school teachers, given that they generally spend much of their time within these local environments. In larger schools, departments can be quite large and have their own micro-climates or cultures which differ from those of other departments within the same school. In smaller schools, departments may also be quite insular, either leading to the development of close bonds between members or, if departments are perceived as unsupportive, fostering feelings of isolation for NQTs.

One aspect of these local cultures identified was whether they were narrated as safe spaces in which to learn. This encompassed aspects such as realistic expectations of performance, feeling able to ask questions or admit mistakes, and receiving positive and genuinely constructive feedback (not just focusing on the negatives). Other features identified as contributing to supportive departmental cultures included: friendliness and approachability of all staff, cultures of sharing resources and knowledge (versus those of competition), being made to feel valued as part of the team, and spending time together informally during breaks and after school. Theoretically, these findings link with ideas about the degree to which school cultures are integrated, spontaneously supportive and collaborative, as opposed to those which are departmentalised (balkanized) or individualistic^{325,330,332}.

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Previous research has noted that collaboration at an organisational level, such as mandatory formal meetings between NQTs and their mentors, is helpful for new teachers and ensures a minimum level of support. However, the biggest shifts in professional and personal development arise from spontaneous, opportunistic and non-formal collaborations, especially those which extend across school boundaries of role and team³⁸³. In these data, the degree to which local cultures were narrated as collaborative varied across a continuum. At one end of this continuum were schools where participants felt they could approach any member of staff for advice, including allied support and administration staff, seniors modelled fallibility and a willingness to share knowledge, or where social events were organised to bring whole school communities together. These might fit the description of collaborative cultures, as the teachers in these environments appeared to engage in many professional development activities together, expressed feelings of support being available should they require it, and described forming genuine friendships. Previous research has highlighted this relational aspect of school life. For instance, one study found that socialising with colleagues outside of school can help new teachers connect with others and foster collaborations within school, leading to mutual respect and teamwork²⁰.

Also mentioned, albeit less frequently, was competition between departments, or departments which were 'a bit cliquy'; in that they were highly supportive internally but that more efforts could be made to reach out and collaborate with other subject departments and faculties. This may result from strong within-department ties between members and much time spent together, particularly in large departments who have little need to interact with other areas of the school. At the other end of this continuum was a department described as unwelcoming to new teachers and internally competitive, with reluctance to share resources or knowledge, a general feeling that seniors were 'too busy' to provide help, and

that requiring support was seen as a weakness.

The creation of welcoming departmental and school cultures is not always straightforward, as social groups are composed of individuals, some of whom may display entrenched behaviours and attitudes. However, there is evidence that members of leadership teams can have much influence in setting the general 'tone' of organisational cultures due to their higher status and power^{339,340,341}. For example, school leaders might encourage open conversations with their staff and the sharing of ideas (so long as these are authentic behaviours rather than performative), and model the supportive behaviours they wish to see in others⁶³². Experienced staff can feel reluctance to share what they perceive as 'inappropriate' emotions with colleagues due to fears over loss of credibility⁶³³. However, as mentioned in these data, the modelling of vulnerability by seniors, through talking about times when they themselves have faced difficulties or obtained support, may be helpful in normalising cultures of supportivity. Given that separate departmental micro-cultures are also likely to exist, middle-leaders such as department heads, may also be important when trying to address culture change on a more local level. The effective departmental teams described in these data appeared to have supportive heads who fostered collaboration and informal contact *within* their departments. In these data, some participants also described how composition of departmental teams affected their support. For example, perceptions that departments containing many long-serving teachers benefited from their greater knowledge and experience, but might mean they were less open to new ideas. Another NQT described how working in a 'very young' department meant they were 'in it together', but also alluded to other new teachers in their department as 'struggling', perhaps reflecting a lack of support from more experienced staff^{NQT4}. Ideally then, departments might include 'a good mix'^{NQT7}, given that collaborations between new teachers and more experienced

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staff can be rewarding for both parties⁶⁰².

In addition to enhancing departmental cultures, it may be possible for cross-departmental and inter-school links to be formed. For instance, in these data some new teachers were given opportunities to observe teachers in other subject areas, or at other schools within their academy or LEA. One participant talked about a regional training partnership in the South West who organised training and conference events for new teachers, so providing them with the opportunity to meet NQTs from other secondary schools. Such initiatives may support professional development through the gaining of fresh ideas and perspectives, and reduce the interdepartmental competition which sometimes occurs in schools, with implications for better working relationships and practice. It has also been noted that certain features of schools can increase the likelihood that they develop cultures of individualism or stagnation. For example, schools in rural or coastal areas may suffer from 'educational isolation'. Due to socioeconomic factors and location, these schools face particular challenges in recruiting new teachers and may find it difficult to collaborate with other schools, leading towards a tendency for more 'static' school cultures⁶³⁴. This may make it particularly important that NQTs in such schools have healthy cultures of support within their departments and are able to develop wider networks of support beyond their school.

Supportive departmental and school cultures may also encompass encouragement to aim for a healthy work-life balance, with realistic expectations of new teachers' performance during their first year. Guidelines for schools produced by the teaching union [NASUWT](#), based on the [STPCD](#), state that 'Your school should ensure that you are able to achieve a satisfactory balance between the time required to do your job and time to pursue interests outside work'⁹³. In these data, one teacher described feeling that they needed to be 'outstanding' right

from the start, whereas another NQT narrated how their head of department gave new teachers permission to be less than perfect, in order that they might 'survive' their first year and learn from their experiences, both positive and negative. This demonstrates that, even within wider educational cultures of performativity, it may be possible challenge such rhetoric at a local level (although this might be more difficult in schools which have been judged as under-achieving). Workload is also consistently reported as problematic for teachers, and the reasons given for this have included multiple educational policy changes⁶³⁵, schools feeling they need to provide excessive evidence for OFSTED¹⁰³, and staffing shortages¹⁶⁴. However, research evidence suggests that there is capacity for schools to reduce unnecessary workload, such as that related to marking, without negative impacts upon pupil attainment⁶³⁶. Similar measures by senior leadership teams, and realistic expectations from mentors, could therefore reduce pressures on new teachers and support their wellbeing and retention.

8.3.8 Peer support

In these data, teachers distinguished between the roles that more experienced staff played with regard to their support, and those which were closer to them in career pathways. Long-serving staff were perceived as being able to draw upon an extensive body of knowledge and experience to provide information and guidance. Whereas, fellow NQTs and those teachers who had trained one or two years previously, were seen as having different advantages. For instance, they might have specific knowledge of local contexts or share tips which were relevant to them as new teachers. They were also described as providing forums for venting feelings, sharing experiences, and gaining reassurance. Some NQTs related that peers were good sources of fresh ideas, due to their newness to the profession and having recollection of academic theory. Peers might also act as informal sources of feedback, which benefited from being unrelated to

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assessment. A couple of participants expressed intentions to support future NQTs coming into their schools as they felt that the recency of their experiences would be advantageous to this. The findings presented here support past research findings, that reciprocal peer support can help teachers develop their 'knowledge, skills, attitudes and values'⁶³⁷. Also, that feedback from peers is perceived as less 'threatening', and that NQT+1s themselves feel they are well placed to support NQTs⁶²⁹. Recent trainees, such as NQTs, NQT+1s and 2s, may therefore represent a valuable resource for some schools in supporting new teachers, depending on school size and the frequency of new trainees coming in.

Receptivity towards formal peer mentoring schemes can be variable however, with some new teachers indicating concerns over compatibility of personality or teaching style⁶³⁸. Alternatives to formal peer-mentoring schemes may involve initiatives which encourage the formation of informal social networks of peers and near-peers. Depending on school context, these might include shared NQT training courses, lectures and conferences (on and off-site), visits to other schools to observe other recently trained teachers, and social events. It has also been suggested that arranging 'new teacher meetings' can allow NQTs to keep up to date with developments, ask questions and request training, in a relaxed atmosphere²⁴⁰. Such networks might also be facilitated through ITT, by including information on wider peer networks (as discussed earlier^{8.3.1}), or through the setting up of social networks during training (e.g. through online platforms).

8.3.9 Stories of agency and constraint by NQTs

As noted in section 8.2.7, contemporary theories of professional agency have conceptualised it as a complex interplay between individual capacities, motivations and life histories; the social and organisational structures surrounding those individuals; and the material resources available to them⁶³⁹. Such structures would

ideally provide sufficient support for new professionals, whilst also affording appropriate levels of challenge to stimulate development⁶⁴⁰. In the NQT data analysed here, were stories which illustrated this balance. In these narratives, new teachers talked about seeking support from others, whilst also supporting peers reciprocally and making contributions to their school and teams. NQTs described initiating learning opportunities and requesting feedback, but also told stories which conveyed a desire to demonstrate their competence and autonomy. Activities through which NQTs can contribute to their schools, whether that be through taking leadership on trips or extra-curricular activities, has been suggested to help them form positive bonds with their workplace⁶⁴¹. Some participants also made conscious efforts to connect with others, so as to build their capacity for obtaining future support. Narratives of persistence were evident, however, when insufficient support was perceived as available to NQTs. In addition, there were stories in which teachers talked about a lack of need for support. It is difficult to know whether such expressions might arise from genuine motivations towards independence and professional autonomy, or whether they may be ways of rationalising a lack of support within cultures of performativity, where members may be expected (or put pressure on themselves) to appear competent. Whilst attitudes of persistence by new teachers may help them to weather temporary difficulties, in the longer run they also need support and encouragement from others if they are to become effective teachers and stay in the profession⁶⁴². Therefore, supporting agency in educational workplaces might be achieved through a combination of measures which facilitate support and learning opportunities in schools, whilst also communicating to trainee teachers the different ways they can support their own professional development. Schools might also encourage NQTs' desires to make additional contributions to their schools, so long as these are voluntary and not adding to already excessive workload. It should be remembered also, that agency may be expressed in different ways. For example, moving between schools may be a way

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for some teachers to maximise their person-organisation fit, by finding a school whose atmosphere, practices and values more closely match their disposition⁶⁴³.

8.3.10 Implications for future research on workplace support for NQTs

Further research could be undertaken into the nature of interprofessional support for secondary school teachers, whether that is from professionals outside the school such as educational psychologists, social workers, and occupational therapists, or from SENCos and allied support staff. In these data, teachers indicated that they obtained information and advice on SEN from behaviour and support staff, TAs, SENCos and SEND teams. Given integration into mainstream schools of those children who have additional learning, behavioural, physical and emotional needs, it would be helpful to understand the nature of these relationships further. For example, how information is transferred between different teams, such as the multidisciplinary teams who work with named children, to SEND and learning support teams, through to teachers in the classroom (and vice versa), and to what extent new teachers feel they work collaboratively with these professionals.

Exploring what contributes to unsupportive departmental and school cultures could prove difficult given that schools and teachers experiencing difficulties may not volunteer to take part in research. However, the dynamics of departments and schools which have positive cultures of collaboration and support might be more easily studied. This could involve observations of practice in those schools. It might also be helpful to talk to teachers who have worked in several different schools, and therefore experienced different workplace cultures, to help unpick the factors which underlie and contribute to supportive local cultures.

8.3.11 Implications for practice: supporting NQTs

It should be noted that NQTs' own suggestions for changes to new teacher support were varied, depending on their own perspectives and experiences during their first year, and perhaps reflective of particular gaps in their provision^{6.9}. Therefore, it seems advisable that support for NQTs be assessed on a school or even departmental basis, so that they can be tailored to local contexts. This could include offering measures such as that described by one participant here, where a mindfulness coach offered independent sessions of support. Alternatively, it might involve looking at ways to tackle high workloads, such as reducing unnecessary marking and paperwork, or improving the availability of shared departmental resources to support NQTs with lesson planning. Informal audits could be conducted to assess how well certain needs are being met, and forums provided for NQTs to reflect honestly on the support they receive and require, outside of assessment contexts. In addition, supporting NQTs may be enhanced through assessing teacher wellbeing on a whole-school level, as school leaders and mentors who are themselves under pressure may find it difficult to provide time and energy to new staff. Given these caveats, however, some possible recommendations for policy and practice follow:

- Pre-service training might include shadowing of teaching assistants, to increase role understanding and knowledge of how TAs and teachers can work well together as a team.
- In-service teacher training could include information on SEN topics, delivered by SENCos and allied professionals from outside of the school. School inductions could also include introductions to allied support and behaviour staff to facilitate future support.
- Encouraging and arranging for teachers to visit other departments and schools, to make observations of teaching, may help them gain inspiration, fresh ideas and wider perspectives.

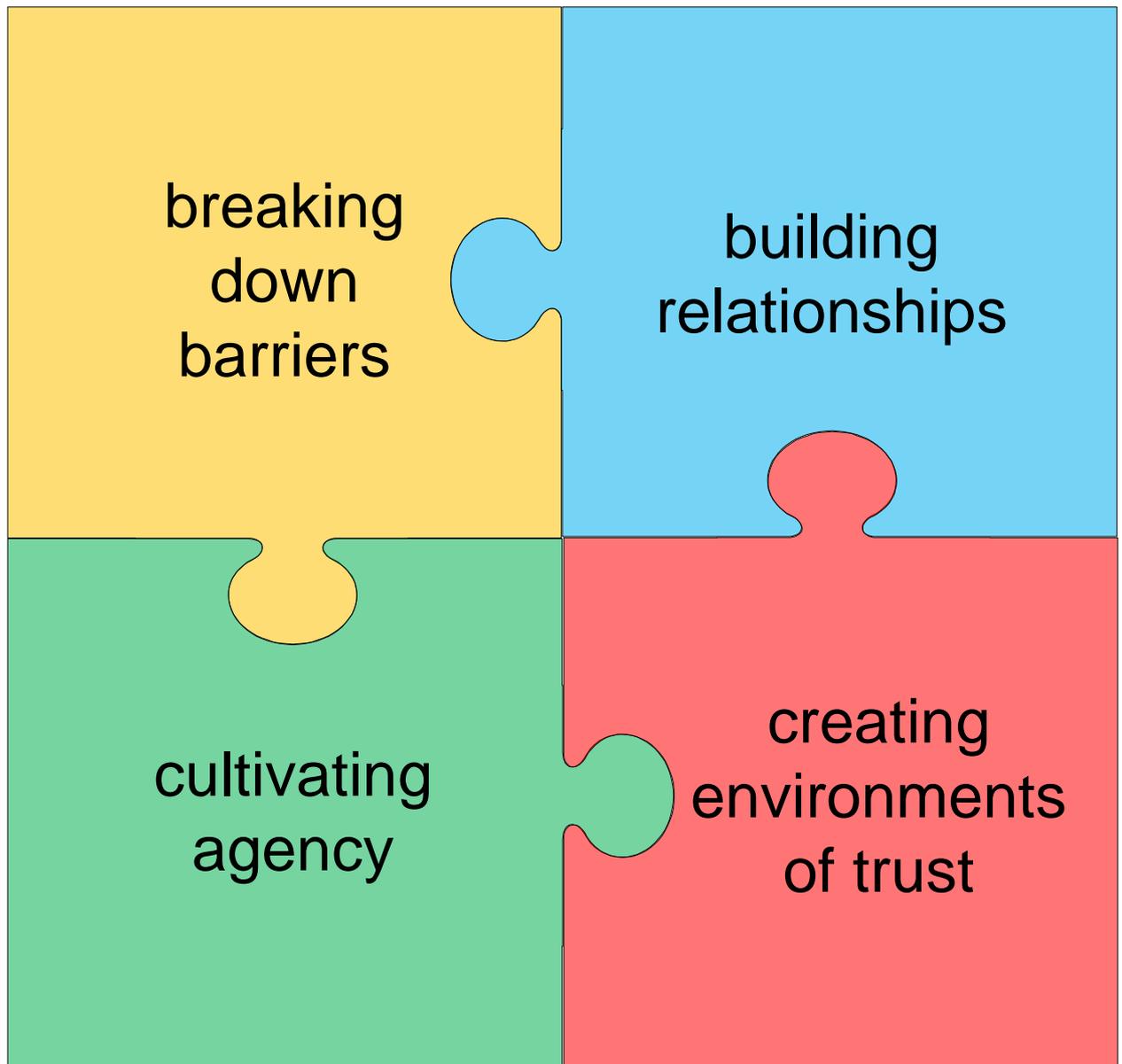
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- Extending provision of regional NQT conferences and training events, which are already available in some parts of England. These can facilitate contact between new teachers to form informal professional networks of support, which might be particularly useful for those working in small or otherwise educationally isolated schools.
- Encouraging informal contact between members of staff on both a departmental and a whole-school level, via social and training events, and through provision of shared social facilities and office spaces. This could help facilitate future collaboration and support within schools for NQTs.
- Members of SLT and heads of department/faculty could be aware of ways they might influence local cultures of support, through explicit and implicit expectations and the modelling of supportive behaviours.
- 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.
- peers and near-peers are a potentially valuable resource, due to their ability to relate to other 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 informal peer observation and feedback between NQTs.
- Teacher trainees in ITT programmes may benefit from knowing how past NQTs have navigated their first years successfully, including development of wider networks of support both 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.

8.4 A cross-professional comparison of workplace support for F1s and NQTs

Through a comparison of two different but analogous workplace contexts it has been possible to see broad similarities between the factors which influence workplace support in these 'hot action' environments. In this section, these findings will be related to the literature and some strategies for facilitating support for new professionals explored. These strategies have been grouped into four interrelated themes: breaking down barriers, building relationships, creating environments of trust, and cultivating agency. These aims might be achieved through a broadly 'ecological' approach to support, which take into account the interactions between different factors at the level of individuals, groups and organisations, as well as physical spaces and broader socioeconomic environments.

Figure 8.1: Facilitating workplace support for new professionals



8.4.1 Breaking down barriers

Multiple barriers may inhibit workplace support for novice professionals, including physical or perceived unavailability of others, material layouts of workplaces,

8.4 A cross-professional comparison of workplace support for F1s and NQTs

stereotypical attitudes, insufficient understanding of different professional roles, or of how to make contact with others. Overcoming these barriers may therefore benefit from employing multiple strategies

By way of example, it has been shown that professional stereotypes or 'tropes' can be resistant to change and that raising awareness of professional stereotyping is not, on its own, sufficient to challenge them⁶⁴⁴. Therefore, it is important that the factors associated with attitude change in more successful IPE programmes are better understood⁵⁸¹. However, given that knowledge transfer between training environments and the workplace is often incomplete, it may be necessary to go beyond IPE modules during training, to implement IPL and interprofessional contact within real-life working contexts. This might include inductions which not only orient professionals to their local environments, but also create opportunities to meet other professionals and support staff, with guidance on how and when they can be contacted, and what support they might offer. Such inductions could also draw upon the on-the-ground knowledge of peers and others closer to them in the hierarchy or training paths, who may be better placed to understand what 'taken-for-granted' knowledge might otherwise be omitted. Shadowing of allied specialist and support staff during pre or postgraduate phases could additionally facilitate deeper understanding of these roles, building the knowledge and understanding required for productive collaborations.

It has been proposed that certain features of some working environments, such as high stress and working under time pressure, combined with perceived 'threats' to wellbeing or self-esteem can further encourage rigidity of thinking^{645,646}, which may include retreats into professional silos and stereotyped thinking⁶⁴⁷. These might be overcome through increased contact time and building genuine relationships with others. Additionally, through aiming to create

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environments of trust (see section 8.4.3), it may be possible reduce perceptions of threat from others, for instance that junior staff wish to undermine authority or that seniors are intimidating. By expanding networks of support to include a variety of allied and support staff, this could also provide novices with alternative sources of support in situations where immediate seniors are unavailable. Finally, through the provision of positive feedback to novices, conveying an appreciation of the contributions which team members make towards achieving joint goals, this may reduce feelings of competition between professional groups³⁹⁴. Similar feelings of competition between organisational departments may also exist, so reducing inter-departmental collaboration and support. This might be tackled through facilitating inter-departmental contact and building relationships, thereby moving from 'balkanised' departmental cultures through to workplace cultures which are collaborative across organisations.

8.4.2 Building relationships

In addition to overcoming barriers, the building of positive relationships with others in and outside of the workplace can also facilitate future support seeking and provision. Whilst in an 'ideal' workplace, the aim would be to create a supportive culture in general, where all staff feel friendly and approachable, it seems clear from the data that some professionals have a natural inclination towards the teaching and professional support of new staff, and may gain emotional rewards from doing so. For instance, the senior and allied medical professionals described by F1s as taking 'time to teach', and the experienced teachers in schools who had 'all kinds of information off the top of their heads' or took NQTs 'under their wing'. In addition, professionals who have recently trained and qualified themselves, may sometimes be better placed to empathise with those coming up. Given that willingness and ability to relate to novices may be better predictors of success than seniority alone^{369,373}, it could be helpful to

8.4 A cross-professional comparison of workplace support for F1s and NQTs

make use of these 'natural mentors' as part of the process of allocating mentors or supervisors. For this to be successful however, protected time needs to be built into the roles of mentors, acknowledgement made of its importance, and feedback gained at regular intervals from both parties on what works well and what doesn't^{648,649}. Given that, when sufficiently supported in terms of training and time, mentoring can be beneficial for both mentor and mentee^{371,650,361}, these aspects of roles might also be highlighted during mentor recruitment.

In section 7.5, it was noted that different sources of support have differing strengths and limitations. Acknowledging this in the workplace may help the tailoring of support for new professionals, with different allies being approached for different purposes to make the most of these specific attributes. For example, if peers and near-peers are perceived as more approachable and are more accessible to novices in terms of increased time and less physical barriers, then they could be utilised in peer-mentoring schemes, for teaching, socioemotional support and as part of inductions to orient novices to new environments. Being exposed to multiple mentors may provide different perspectives, so insulating novices against picking up bad habits³⁵⁷ or norms of attitude which go against their professional values.

Providing informal opportunities for staff to meet others, within and beyond their teams, departments or professions, can also help novices to build working relationships and friendships, so facilitating future support. This might be achieved in various different ways, for instance, organisation of shared social and training events for interdisciplinary groups of professionals and support staff. Material factors may also be influential, with provision of 'congregational spaces' having the potential to facilitate informal contact^{621,622}. However, in a recent survey, around a third of trainee doctors reported having no access to 'mess' or

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common room facilities, and a similar percentage rated the provisions they did have as being poor quality¹⁸⁹. Some hospitals have favoured open-plan canteens over shared staff rooms during redesigns of space, and this lack of communal, private areas for medical staff is argued to inhibit knowledge exchange between different healthcare professionals, whilst adding to feelings of deprofessionalisation in medicine⁶⁵¹. This suggests that when building or re-designing professional workplaces, consideration should be made of the ways that physical spaces can encourage or inhibit relationship-building and knowledge-sharing, as these can have further consequences for professional wellbeing and professional outcomes.

In this study, some NQTs talked about accessing wider professional networks via social media. The F1s in these data did not touch on this topic, perhaps due to the particular research questions asked in the original studies which generated that data. However, past research suggests that doctors do increasingly participate in online communities of practice, which have been claimed to 'extend the boundaries and reach' of medical practitioners, to support their professional development, and help keep them up to date with new medical evidence⁶⁵². Thus, the ways in which new professionals form networks with others is perhaps inevitably changing over time, to include both physical and virtual contact, to obtain advice, information and feelings of kinship.

The extent to which such networks support new professionals in practice is one which suggests many possible questions for future research; for instance, what proportion of new professionals in medicine and teaching use such networks, what do they use them for, and how valuable do they find them for their practice. Moreover, given such rapid uptake of new forms of collaboration and learning, how might novices best take advantage of the affordances of new technologies whilst also navigating their potential challenges⁶⁵³. Education and

8.4 A cross-professional comparison of workplace support for F1s and NQTs

training curricula for professionals might incorporate information and guidance on how to access wider professional networks into curricula, whether that be through professional conferences and CPD, professional bodies, or online communities of practice. It has been proposed that such 'developmental networks' may re-conceptualise traditional mentoring relationships, offering novices numerous opportunities to gain support from different formal and informal mentor figures, including peers and those beyond the workplace⁶⁵⁴. Additionally, F1 participants did narrate using the internet or mobile phone 'apps' as sources of information during their work, an increasingly common practice in medicine⁶⁵⁵, and some NQTs narrated finding resources on the internet whilst avoiding engagement with social media. Professional training programmes might therefore also include practical guidance on the use of the internet and technology more generally within professional practice, with a consideration of their benefits and limitations as sources of information, professional development and support^{653,655}.

8.4.3 Creating environments of trust

In order to maximise the potential for novices to learn in the workplace and seek support from others, organisations should aim to create environments of trust. In such environments, it would be explicitly acknowledged that new professionals are still learning, that asking questions is accepted, and that all professionals need support from others. It may also require recognition that errors can sometimes occur despite best efforts, but that lessons can be learnt through reflective practices. In those professions which involve 'high-stakes' decision-making such as medicine, this does not imply a minimisation of errors, or that novices be allowed to make major decisions alone. However, it could be helpful to acknowledge the ambiguity inherent in making complex professional judgements in real-life situations, where clear answers are not always readily apparent^{656,657}. Conscious efforts should be made to provide positive, but genuine feedback to trainees, with

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suggestions of specific ways to improve. Such experiences, over time, can help to build novice's feelings of confidence and professional competence⁵⁹⁴, and make them feel like valued contributors to their teams. Due to hierarchical differences in power and status, senior staff and middle leaders may be highly influential in setting the 'mood' of local sociocultural climates, through modelling the supportive behaviours they wish to see in others, and by encouraging open dialogue across hierarchies.

8.4.4 Cultivating agency

Ideas of professional agency as arising from individual capacities or motivations to act, have been re-conceptualised within recent years, with new conceptions of agency seeing it as something which is 'enacted' via the means of surrounding environments and available resources. Through analysis of the stories of support narrated by new doctors and secondary-school teachers, it can be seen that although many novice professionals act agentially to seek support from those around them, this may be facilitated or constrained by a number of material, organisational, and sociocultural factors. Therefore, building the capacity of professionals to seek and make the most of support from others may depend on cultivating environments within which agency can flourish, much as one might seek to enrich the ground before planting a seed. This may involve some of the broad strategies above, to break down barriers, build social relationships, and create environments of trust. It may also comprise of mentors (whether those be formal or informal) providing 'scaffolded'^a opportunities for responsibility and autonomy, to help professionals accumulate relevant experience and grow in confidence.

^aThe concept of scaffolding was first coined in reference to the education of children⁶⁵⁸ but is now also used when talking about professional learning^{659,660}, to indicate how providing the right level of support (but not too much) can help learners to make progress.

8.4.5 Ecological approaches to workplace support

This model was devised in a bottom-up way, using narrative data provided by newly qualified doctors and secondary school teachers. This was done with the aim of understanding and representing their personal experiences of workplace support, rather than ‘testing’ any pre-existing model or theory. Therefore, this study may not have captured all of the factors which can influence workplace support for new professionals, and future research which employs different methodologies, participants and professional groups may add to this list. However, the model of workplace support developed here illustrates some of the multiple factors which can impact the seeking and provision of workplace support, and how these may interact. Workplaces are increasingly recognised as complex social systems, where ‘everything is connected to everything else’⁶⁶¹(p. 291). Therefore, when designing interventions to enhance support it may be helpful to look at workplaces on multiple different levels, and be aware of differences between local contexts. This model, therefore, might be aligned with what will be broadly referred to here as ‘ecological’ or whole-systems approaches, the use of which has been growing within both educational and healthcare research. Whilst these differ in the detail of underlying theories and methodologies employed, they all aim to explore and understand local ecologies (socio-cultural-organisational-material environments), which operate on multiple levels and may be ‘nested’ within broader ecological systems.

For instance, in educational research, Bronfenbrenner’s ecological systems theory^b has been used to explore teacher wellbeing²⁰, and an initiative which aimed to narrow attainment gaps took a whole-systems approach to improving resilience of the whole school community, through conducting an ‘audit’ of local

^bwhich distinguishes between influences at the level of microsystems (individuals and groups), mesosystems (interactions between microsystems i.e. local contexts), exosystems (the organisation), and macrosystems (wider society and policy)⁶⁶²

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contextual factors⁶⁶³. In healthcare, whole-systems approaches have been employed to explore how complex interventions are implemented on the ground and what helps them to succeed^{664,665}. Activity theory is another theoretical approach taken within healthcare research which aims to understand how all aspects of a social system can influence action; including rules and conventions, hierarchies and communities, artefacts and technologies, with interactions between them which can cross formal boundaries of location, profession or team⁶⁶⁶. What these approaches all have in common is an acknowledgement of the importance of local contextual factors when implementing change, and how recommendations of 'best practice' may not always work as intended when 'rolled out' to other settings^{664(p. 305)}. It is not within the scope of this thesis to describe all such approaches, or to identify which of these might be most suitable for further explorations of workplace support for new professionals, but this could perhaps represent a next step for future research.

The model of workplace support presented here puts the agency of individuals at the centre and considers ways in which individuals may respond to or change their surrounding workplace environments. It also illustrates some of the ways in which these environments inhibit or cultivate this agency, as well as influencing support provision by others. These factors may vary between individuals, professions, and local organisational contexts. Therefore, although broad recommendations are suggested here, based on the similarities discerned in this analysis, care might be taken not to use one-size-fits-all approaches to improving support for professionals, or to transfer models of support devised in one profession or organisational context 'wholesale' to another. Instead, they might be adapted to fit the context based on assessments of what novice professionals currently receive, and what they still require, in that workplace.

8.4.6 Implications for future research on workplace support for new professionals

The model developed here could be used as a tool to investigate the workplace support experiences of other groups of novice professionals in similar hot action environments, to identify points of convergence and divergence. Future research might also further explore ecological, whole-systems or activity theory approaches to understanding workplace support. This might lead to development of methods to assess which factors in different local environments are key to enhancing support for new professionals, so that recommendations for change might be implemented in those contexts more successfully.

8.4.7 Implications for practice: facilitating workplace support for new professionals

To summarise, some broad recommendations which might be suggested as strategies to facilitate workplace support for new professionals, especially those in analogous 'hot action' situations, are as follows. These might be interpreted and adapted in the light of the features of specific professions, organisational cultures and local contexts.

- Ensure that inductions to local environments include face-to-face introductions to the 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.
- Identify who the key professionals and support staff are for that new professional, and use shadowing programmes to increase role understanding, break down social barriers and build positive relationships.
- Use natural mentors and teachers within organisations, building sufficient time for mentoring activities into their job roles, and publicly acknowledging the im-

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importance of supporting new professionals in the organisation. Where possible, ensure that these roles are distinct from those of assessment, appraisal and career progression, so as to reduce power differentials in the processes of professional learning and support.

- Draw upon peers and near-peers for activities such as inductions, and create opportunities for them to build social networks with these peers, such as group training, social events or buddy systems.
- Facilitate opportunities for all staff to meet others informally, whether that be through provision of shared facilities in buildings, or social and training events, at the level of teams, departments and the organisation.
- Incorporate information on accessing wider professional communities, including online communities and the use of technology, into education and training routes.
- Understand that new professionals require appropriately scaffolded opportunities for challenge, in addition to support, in order to build feelings of confidence, competence, and belonging to the team.

8.5 Methodological limitations and strengths

8.5.1 Narrative data

The constructed nature of stories which people tell is acknowledged as a feature of the data. Although a strength of narrative methods is how it grounds data in specific, recent events, participants also use stories to explore and make sense of past experiences within the present moment, being influenced by factors such as awareness of audience and desires to create positive self-representations. There may be a tendency to focus on events which are dramatic or where there was a problem to overcome. For example, in these data, stories where support was not readily available may have come to mind more readily given the stress

this might evoke.

It has been noted that audio diaries can produce a subtly different kind of data to that produced during individual and group interviews (see section 4.3.5) and this was also observed during the analysis of these medical data. The audio diary narratives often seemed to consist of a 'stream of consciousness' relating to events from that same day or week, and appeared to be a reflective process in themselves. Whereas, the interviews were co-constructed between the interviewer, the participants, and any co-participants present, often reflecting back on events from long time periods, but benefiting from the ability of interviewers to interject to clarify meanings and follow up interesting developments as they arose. This balance between data types, and the offering of an element of choice to participants (as was done in one of the original medical studies, with participants opting to take part in group or individual interviews - section 4.8) may confer several benefits. First, that participants can choose a style of relating stories of experience using a method they feel most comfortable with, leading to richer data and perhaps aiding recruitment; for instance, if participants dislike talking in a group or find it difficult to attend interview sessions, they may prefer recording experiences in private. Secondly, that the data produced will be a mixture of stories - those constructed collaboratively through social interactions with peers or interviewers, and those produced whilst reflecting on a day's events whilst alone - thus, generating a variety of data with different advantages.

8.5.2 Secondary data

The positives and negatives of secondary data use has been extensively discussed in previous literature⁶⁶⁷, some advantages being efficiency of data use and participant time (particularly useful when studying busy professionals), and the possibility that spontaneously-generated stories slightly 'off-track' from original

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research questions may represent topics of real import to speakers. In this study, although the original interview questions and audio-diary prompts elicited many stories of interprofessional support, in secondary analysis there is no opportunity to explore topics of interest further by prompting participants to 'tell me more about that'. The proportion of stories about particular professionals was likely to have been influenced by the topics being investigated (e.g. questions about antimicrobial prescribing would tend to elicit more mentions of pharmacists). Secondary data also have the feature of having been obtained less recently; in this case, between 2012 and 2013, since which some organisational changes have occurred such as the introduction of new junior doctor contracts in the UK⁶⁶⁸. However, recent research on barriers to collaborative working^{669,670} suggest that the nature of interprofessional collaboration remains highly similar in practice, whilst the constraints of workload and time have been heightened by changes in working conditions⁶⁷¹. Furthermore, informal discussions with junior doctors at conferences elicited positive responses, with recognition of the themes identified as reflecting their own experiences. Although, this group did express a feeling that perhaps the methods of 'teaching by humiliation' might gradually be changing into more positive forms.

8.5.3 Data collection and generalisability of findings

The narrative interviews were mostly conducted face-to face at participants' schools or at the university itself, but three out of the eleven were carried out over the telephone instead. This option was offered to participants so as to increase geographical reach without adding time or monetary costs, and also as a matter of personal choice for participants, some of whom might feel greater comfort in revealing their experiences in a slightly different way. During this process, reflective notes were made on the two interview methods and the strengths and advantages of each. Previously, there had been some concerns regarding the

8.5 Methodological limitations and strengths

extent to which rapport might be developed over the telephone, given an absence of body-language cues, but overall they proved to run smoothly and to create high-quality data of comparable richness to the other interviews. There were also some advantages, such as the reduction of factors to focus on during the interview itself, and the ease of checking questions and making notes whilst also listening to what was being said. However, at times, the flow of conversational turn-taking felt less natural, as the absence of body language and facial cues meant that it was less obvious when to ask another question, summarise to check meanings, encourage further elaboration, or give verbal encouragements. It was felt necessary to 'check in' more often as to how participants were feeling and signpost the length and format of the interview; for example, 'Is it okay to carry on, we've been chatting for a while now, I just have a few more questions'. This absence of visual feedback also led to a slightly greater number of interruptions of the speaker during natural pauses. There were also some technical issues; for example, failure of a recording device (ameliorated through the use of two recording devices at all times) and a poor line quality during one interview which led to longer transcription times. However, some of these issues might be alleviated through greater experience of the interviewer in conducting telephone interviews. In conclusion, it was felt that the advantages of being able to extend recruitment beyond previous local contacts, reaching a wider audience and perhaps encouraging diversity of participants, and the reassurance that data of equitable quality were being produced, meant that it was a valued method.

A narrative interviewing style in itself, whether in person or over the phone, takes some time to achieve. For example, it was necessary to develop confidence in this more unstructured process, to allow participants the space and time to develop stories in their own ways, and recognise that because of this format each interview might be quite different from the others. Interviews conducted

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later in the series may therefore have been truer to the narrative interviewing style than earlier ones. In addition, some participants took a while to become accustomed to the nature of telling more specific, recent stories and so, although the method was explained fully before interviews began, regular gentle reminders were required. The style of interviews varied greatly between participants, with some naturally returning to telling generalised stories, and other tending towards short answers rather than expansive ones. Although in everyday life, we often tell each other very specific stories of events, people's typical experiences of research may involve being asked very general questions and expectations of supplying generalised answers (e.g. as in survey data). Also, there was a tension between feeling the need to ask fairly general questions at the beginning of interviews, to 'break the ice' and provide an overall sense of who teachers turned to, and the danger that this would encourage generalised responses throughout. The format and questions used during interviews also built upon the findings of ones conducted previously, and again there was a tension between wanting to allow stories to unfold naturally but also to follow up avenues highlighted by previous interviewees. This dilemma was dealt with by the decision to begin interviews in a less constrained way, allowing teachers to identify what they considered to be support and talk about who provided that, and draw upon previous findings to elicit further responses at the end of interviews should time allow.

Recruitment of teachers was a lengthy process. Taking the decision to recruit NQTs directly, rather than via schools, hopefully allowed participants to speak openly about their experiences, reducing any risk of feeling pressure to tell stories which positively represented their schools. However, this may have made it more difficult to access participants. As has been identified in this research, issues of trust and informal networks are key to teacher learning, and similar aspects may influence recruitment. Eight out of the eleven participants who

agreed to take part in interviews were sourced via informal links, such as having the study passed on to them by educational contacts at Exeter or by their NQT mentor, seeing the study shared in a Facebook page for past Exeter trainees, and one via a colleague who gave a presentation at their school. The remainder were recruited via calls for participants shared on Twitter. This experience highlights the importance of participant trust and the value of personal connections during recruitment processes. This may also explain why the survey designed to elicit online stories of support was not very successful, despite being shared via social networks and on teacher forums. Given the ubiquity of surveys in modern research, perceived connections with marketing, and difficulties in making genuine personal connections with potential participants, it may be difficult to establish feelings of trust. Future research using online methods may benefit from using an evidence-based approach to survey design and distribution strategies based on factors which have been shown to increase response rates to research surveys in the past⁶⁷².

It should also be acknowledged that there may be limits to the generalisability of these data, given that 8/11 NQTs who agreed to be interview participants were located in the South West, and all were working in English schools during their NQT year. Although there are likely to be important overlaps between the experiences of these participants with those in other areas of the UK and teachers internationally, which allow much value to be derived from comparisons, there may be differences in the specific training routes they have undertaken, and in the socioeconomic, policy and cultural contexts of teaching as compared to England. Furthermore, all participants in this study, as in practically all qualitative studies, were volunteers, who may differ with regard to the broad population being studied (i.e. in this case, newly-qualified teachers) in terms of personality, socioeconomic characteristics or experiences^{673,674}. This aspect

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of research seems unavoidable but could have subtle influences upon the data produced. For example, teachers who are well supported in school may have more capacity to take part in research²⁴⁰ and those who have had particularly negative experiences may feel greater motivation to take part, to give voice to those experiences and instigate change.

Similar methodological strengths and limitations were acknowledged by the original research teams as pertaining to the medical data used here for secondary analysis. For instance, that narrative data methods confer advantages in terms of the richness of data produced¹⁵⁴, and may help overcome some of the limitations of self-reports and 'de-contextualised' data³⁹⁵ by grounding it in specific, recent experiences³⁸⁷. Also that the data were seen as giving a fair representation of UK junior doctor experiences but that generalisability beyond the UK might depend on similarity of context⁵⁴⁴.

8.5.4 Differing sizes of datasets

The datasets collected from medical professionals consisted of 61 interviews and 255 audio diaries from 52 participants, whereas the teacher data were composed of 11 narrative interviews and 2 online survey responses, from 12 participants overall. These differences in size were due in part to the ways in which the data were obtained. The medical data collected during three multi-researcher projects were available with full transcripts already completed, and possessed the advantages of being both broad and deep. Whereas, the teacher data were collected solely by the author, and were subject to differing constraints of time, expertise and material resources, but had the advantage of being specifically conducted to answer the research questions of interest. Under ideal conditions, it might be preferable to match the size of the medical dataset with further teacher interviews, and possibly teacher audio diaries, and this could represent an opportunity for fu-

ture work. However, the in-depth nature of the teacher interviews, with questions focused solely on NQT support, meant that the data produced was 'dense' in terms of the number of relevant narratives produced. The number of 'stories of support' identified (568 medical narratives and 284 teacher narratives) was therefore seen as adequately comparable. Furthermore, the data collected from teachers was felt sufficient to explore these same research questions in a different working environment, with note made as to the limitations of the NQT participant sample in terms of size and location (see section 8.5.3). This research design also conferred a somewhat unique advantage in that the observations and insights gained from the previous analysis of F1 data were used to help inform both the NQT data collection and its analysis.

8.5.5 Cross-professional comparisons

To draw upon a film-making analogy, one of the strengths of cross professional comparisons is that they encourage the researcher to 'pan out' from what can naturally become a close-up focus on the specifics of data and workplace contexts during analysis, to gain a broader perspective. As when undertaking cross-cultural comparisons, through aiming to uncover overarching similarities and divergences between contexts, one is obliged to look beyond the situated nature of the data to make links in a more abstract way. This is, of course, also the task when doing any kind of thematic analysis⁶⁷⁵, but this process is intensified when it is necessary to see patterns not just across multiple participants and data collection sites, but also across two or more professions. Given the broad similarities already identified in section 2.3, some analogies were easier to discern; for example, a doctor receiving emotional support after a difficult interaction with a patient is clearly analogous to a teacher receiving emotional support after an upsetting incident with a student. Other themes were not immediately obvious; for instance, the interactive nature of learning from others 'on the spot'

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will be illustrated by quite different examples for an F1 doctor than it would for a teacher. In the former case, this might consist of the F1 being observed and guided through a practical procedure whilst being given continual feedback, for an NQT this might mean sitting with another member of staff and co-planning a lesson together. In both cases, there is an interactive, social element to the learning taking place, with advice being provided by a knowledgeable and more experienced party, but also being a two-way process of communication which allows for questions, clarification and explanations of why.

A further advantage of this cross-professional comparison is that both professions were viewed as having equal status, with aspects of each context and dataset seen as having the potential to inform the other, rather than aiming to apply wholesale what might be seen as successful strategies of support in one workplace context to another. One consideration whilst using this method, therefore, was achieving a balance between on the one hand using the medical data as a 'lens' through which to see the teacher data and vice versa, whilst on the other ensuring that these did not overly constrain what might be determined from teacher interviews in a bottom-up, data-driven manner. Hence, the coding index for the teacher data was not wholly put together before coding began, but was merely given an outline by the preceding findings and was open to revision throughout the analytical process. Integration of the datasets was also achieved through a number of steps, including connecting, building, merging and embedding (section 4.7). Further links were made during the process of writing up this thesis, the creation of presentations which illustrated links between the two sets of findings (whilst analysis was still in progress), and subsequent discussions with professionals and their educators about these links (for instance at medical and teacher education conferences).

8.5.6 Pluralist analytical methodologies and data types

During stage three (a comparative analysis of the two professions) a second method of analysis was employed which took a more critical, discursive approach to the data. This method used the concept of character tropes to further explore a sub-theme identified during thematic analysis, which centred around participants' perceptions of other staff and their roles. This was felt to add analytical depth and aid understanding of how F1s and NQTs viewed others in the workplace. Although thematic analysis is a useful method for summarising patterns in large datasets and for asking multiple questions of the data, a limitation is that the data tends to be taken at face value, overlooking ways in which narrators position themselves and others in their stories for specific purposes (see section 4.4.3). Analytical pluralism, 'the application of more than one qualitative analytical method to a single data set'⁶⁷⁶, and pluralistic approaches in general, can arguably be a powerful way of investigating complex social phenomena, given their multidimensional nature^{677,678}. They may also be helpful when we wish to explore a portion of the data further to answer a specific question⁶⁷⁹. Whilst acknowledging the debates regarding the compatibility of certain methodologies due to differences between underlying epistemological paradigms⁶⁸⁰, these are not addressed in any depth here. This research takes the view that there are multiple ontological perspectives through which we might view the world (section 4.2.1) and multiple ways of obtaining knowledge (section 4.2.2), and therefore different methodologies can be complementary so long as we are mindful of their particular advantages, limitations, and underlying paradigmatic assumptions.

The use of multiple medical datasets for secondary analysis, including narrative interviews with individuals and groups, and audio diary data, might also be viewed as a plural methodological approach, and the combining of different qualitative data sources is becoming more common. For instance, diary apps,

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used by participants on their mobile phones to collect multi-modal data such as written, video and audio diaries, have been employed to capture experiences soon after they occur, thus also offering a choice to participants in how they record data. Methods like this present another potential avenue for future research on new professionals' workplace support, making use of the everyday technologies that many people carry around.

8.5.7 The use of numerical data within qualitative analysis

During this research, numerical data were used to add information to what is predominantly a qualitative analytical approach. For instance, the provision of the number of PINS and GINS identified in F1 and NQT datasets, to give readers a sense of the proportion of medical data which related to stories of support, and the extent to which the teacher data were equivalent in terms of richness. Numbers were also used to create tables (5.1 and 6.1) to help convey general patterns regarding who provided support to new professionals and what types of support they provided. The purpose of these numerical data was not to imply rigorous statistical analysis, but as a further form of categorisation which might help the reader more readily discern overall patterns in the data. It is acknowledged that a number of other factors might influence the frequency of particular people or support types being mentioned in both sets of narratives, including: what they themselves define as 'support' and their awareness of certain types of support (see section 8.5.8), awareness of audience and desires to represent themselves positively, cues provided by interview questions (which in stage two were sometimes based on responses by previous NQT participants), and particular styles of social interaction between interviewers and participants. Participants' recall of events might also be influenced by recency or their current feelings about their role. For instance, one teacher participant who was an NQT+1 and looking back on their NQT year, began with quite positive stories but

later recalled some difficulties that they had experienced during their first term. In order to 'triangulate' instances of support quantitatively, it might be possible to observe F1s and NQTs at work over a certain time-frame; however, this might prove intrusive, and would still require subjective judgements on the part of the researcher and participants regarding what events counted as support and what types of support they should be categorised as.

The addition of numerical data to qualitative analysis is not without controversy⁶⁸¹. However, it has been argued that if undertaken with care, the quantification of qualitative data can help to increase transparency of interpretation and avoid 'cherry-picking' to support favoured interpretations, provides evidence for the reader of generalisations such as 'many participants narrated that..', aids identification of patterns in large datasets, as well as helping the researcher to discern areas of experience which contradict those overall patterns⁵⁵⁵. In this research, it is clear that quantification is just one small part of data interpretation, with participants' narrations of experience being central to the overall 'story' being told.

8.5.8 Invisible sources of support

One further limitation of these data may be that some instances of support go unnoticed or unacknowledged, and so not feature explicitly within narratives. This seems especially likely with support given by more junior staff, such as nurses, health care assistants, teaching assistants and administrators, who may be seen as 'part of the furniture'. This was explicitly mentioned by one teacher, who said

P: To be honest a lot of those things are, and I say this very guiltily are the ones that I don- I take for granted a lot of the time, because () we do have an amazing SEND department here for example, and they give so much support, erm and I take it

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I: is that to you or directly to the children

P: it's directly to the children but, I for example know that all of my SEND students if- when- and I do this quite regularly whenever I've got a question about them, their pupil passports are just so nicely done, that I can just go onto the system straight away look at four bullet points that summarise that student, with more detail if I want it afterwards and then I can also go and see that mem- the SEND department if I've got further questions so I think that's like a really nice position to be in having, all of that hard work just making my, my job seamless in that sense [] it- it same with attendance that she, makes my job so, easy just because it's seamless, and everything's, it's is done. NQT11

This was also discernible at times in the medical data, such as one story where a nurse appeared to have provided support but the trainee subsequently implied having gained independent mastery of that task ^(P34). That healthcare assistants were absent from F1 stories in these data may indicate that their support is taken-for-granted by doctors in training. It has been pointed out that given HCAs tend to spend a great deal of time with patients, this group of staff may be useful for team decision-making and should be better represented within healthcare research ⁶⁸². Some recent interventions have explored the supportive roles of HCAs from their own standpoints ^{426,427} with initial findings suggesting that increasing new doctors' understanding of the roles and value of care assistants may enhance their use as a source of support.

8.5.9 Theoretical approaches

As per the somewhat pluralistic approach to methodology, a number of different theoretical approaches, and models were drawn upon during the course of this research (see section 4.1). The work was situated within a broadly sociocultural constructionist paradigm, to reflect the ontological view that social reality cannot

be objectively discerned or measured, and that multiple interpretations of data might be made, based on researchers' unique past experiences and understandings of the world. However, the intention at the outset was also to try and integrate what the author understood to be an interplay between the individual and social factors influencing human behaviour within organisations. To this end, during the first stages of analysis it became clear that different professionals responded to the barriers and facilitators of their environments in different ways, and thus theories of structure and agency were employed at this point to help make sense of these findings. This became an overarching theoretical influence which informed subsequent model development.

Through continually reviewing the literature from across a number of different disciplines relevant to the topic of workplace support, other strands of theory were referenced which related to communities of practice, school and organisational cultures, and models of professional development. These had some influence upon the formulation of research questions, the analytical framework devised and models of professional support developed. Finally, during the third stage of analysis, where a cross-professional comparison was undertaken, links were drawn between the overarching findings and resulting model of workplace support, and ecological, whole systems and activity theory approaches to understanding complex social and organisational environments.

This use of multiple theories to a greater or lesser extent throughout the research, reflects in part the desire to approach the data without a great number of pre-formed ideas, models or theories in mind, which might overly-influence analytical outcomes. It also reveals the steady progression and revision of ideas that apprentice researchers often travel through as they become familiar with new disciplines, research areas and methods. It was felt that a transparent

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account of this journey is more informative, and perhaps more helpful for other new researchers, than one which has been overly 'tidied up' or made to appear more consistent than is the case. Also acknowledged is the way in which different strands of theory can shed light on a topic or body of data, particularly when reading across more than one discipline as this research topic required. This might be seen as a strength of cross-professional comparisons which go outside of one professional domain, as they propel researchers to go beyond particular silos of research literature and knowledge, and provoke a cross-pollination of ideas.

8.6 Conclusions and implications of findings

In conclusion, this research explored the various sources of support that new doctors and secondary school teachers benefit from during their first year of practice. It also identified a number of specific recommendations for education and practice in the professional contexts of medicine and teaching, as well as areas for future research. Finally, models of workplace support for F1s and NQTs, and an overarching model of workplace support for newly qualified professionals, were developed.

In both medicine and teaching, local cultures appeared to be variable in terms of their supportivity for new professionals. Developing positive cultures of support in such workplaces may involve some of the same broad strategies, to break down social, organisational and material barriers, build relationships between different professional and allied staff groups, and create environments of trust in which the agency of professionals is supported. However, how this is implemented in different professions and in different professional contexts may look different in practice.

For instance, new professionals need good inductions to orientate them to local environments. This should include a knowledge of who (understanding roles of others and the support they can provide), where (to find people and resources) and how (for example, having passwords to computer systems and knowing how to input or find data). Novice professionals may also benefit from having face-to-face introductions with staff who perform allied, specialist or support roles; to break down social barriers and to communicate who they are, what they do, where they can be found, and the type of support they can offer. In medicine, F1s ideally require good inductions to every new placement (not just their first one), and shadowing of key professionals or allied staff, such as pharmacists, nurses and HCAs could be used to increase role understanding and promote collaborative working. For NQTs, inductions may sometimes begin the summer before they start work and could include shadowing or co-teaching of other teachers and mentors, in addition to formal training courses. Near-peers and allied staff (e.g. nurses and NQT+1s) might also be involved in induction programmes due to their local knowledge.

In both medicine and teaching, it may be possible to draw upon natural mentors and teachers, whether these be experienced staff or those more recently trained, who are able to relate to the experiences of novices and are enthusiastic about sharing their knowledge and experience. Building sufficient time for supportive activities into their roles, and acknowledging the importance of mentoring in organisations may encourage staff to take on these roles. Ideally, mentoring might be provided by staff who are not responsible for assessing novices or making decisions about their careers, so that new professionals may benefit from truly supportive relationships. This would allow them to engage in honest and open reflections of their strengths, weaknesses, and daily challenges, to receive

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constructive feedback.

New professionals benefit from the formation of wider professional networks and communities of practice. These can be facilitated in a number of ways. For example, through organising group training, social events or buddy systems, at the level of teams and departments and across organisations. In teaching, this might mean have monthly 'new teacher meetings', arranging for NQTs to attend regional events together, or conducting observations of teachers in other schools. In medicine, this could mean near-peer teaching between F2s and F1s, and facilitating informal contact through provision of mess rooms. Professional training programmes might communicate the benefits of being part of wider professional networks and the different ways this might be achieved, whether that be through joining professional organisations, using online communities, or developing peer networks during training.

Finally, there is a role to be played by senior staff in promoting local cultures of supportivity, through the provision of scaffolded opportunities which challenge novices and allow them to contribute to their teams, by modelling vulnerability and openness of discussion, and in promoting realistic expectations of novices during their first year. In this way, the agency of new professionals can be cultivated, so that they can seek support where necessary, instead of persisting in the face adversity which may lead to eventual burnout.

This study employed a novel research design, with a comparative analysis of two professional contexts in order to draw broad conclusions about workplace support for professionals more generally, and pluralistic approaches to the data used and analyses conducted. It drew upon narrative data, the advantages of which are the production of rich, experiential data, which tends to be grounded

in recent events, thus avoiding some of the issues which have been highlighted for other self-report methods. The use of secondary analysis is a practice which is growing within qualitative research, which benefits from efficiencies of time and cost, from not having to ask busy participant groups for more of their time, and allows the data which has been collected to be fully utilised. Drawbacks of this may include the greater age of the medical data, although conversations with stakeholders suggested that the issues identified are still relevant today. There may be limitations to the generalisability of findings drawn for international purposes, given that F1 participants all worked in UK clinical settings, and NQT participants all worked in English schools (mostly in the South West area, due to features of recruitment). The NQT data were derived from experiences of working in secondary schools only, and primary school teachers may have different experiences of workplace support.

More could be known about a number of areas identified in this analysis. For example, to further facilitate interprofessional collaboration and support in medicine, data might be collected from both F1s themselves and a range of allied medical professionals, to understand their different perspectives on interprofessional support, identify possible barriers and strategies to overcome these. Research might also explore whether postgraduate IPL and shadowing programmes within clinical setting could be effective in breaking down professional silos, due to better transfer of knowledge into workplace contexts. In education, research could further explore the extent of interprofessional support for secondary school teachers, both from professionals outside school such as educational psychologists, and SEND teams within schools, to explore how effectively information is transferred between professionals to enhance support for children with SEN.

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In both medicine and teaching, it would be useful also to have a greater understanding of those schools and departments which have positive cultures of supportivity and the underlying factors which contribute to this. Such studies might use a combination of narrative interviews, audio diaries, observations or video-recording methods, to aid understanding of local workplace contexts. In medicine, this movement between different workplace settings is a naturally occurring phenomenon which may aid an understanding of the similarities and differences. In education, it may therefore be helpful to collect data from teachers who have moved between different schools, as this may have provided them with experiences of different cultures of support.

Finally, the models developed during this research may lend themselves to ecological or whole-systems approaches to studying complex organisations. Future work may look at how the features of workplaces can be assessed on multiple levels (individual, socio-cultural, organisational and material) in terms of their supportivity for new professionals, to produce specific recommendations for change in local settings in collaboration with novices themselves.

9 Appendices

9.1 School-based teacher training routes

Box 9.1 Overview of school-based teacher training routes

Schools Direct training programmes offer salaried positions at individual schools, who directly recruit and employ trainee teachers themselves.

SCITT (School-centred Initial Teacher Training) courses are delivered jointly by groups of schools who aim to recruit more experienced applicants, frequently those already employed within those schools.

In both schemes, training is mainly delivered within the classroom by currently-practising experienced teachers. Trainees may also attend modules at a partner university.

For *SCITT* trainees, placements are also arranged at one or more of the partner schools in that group.

Teach First is an educational charity, established in 2002, which trains high-performing graduates to work in challenging schools in England and Wales. The aim of this initiative was to help overcome socioeconomic disadvantage for pupils in low-income areas.

This employment-based course begins with a six-week intensive summer residential at a *Teach First* institute, followed by two years teaching - the first as an unqualified teacher, and the second as a full-time salaried NQT. Candidates additionally receive training on the Leadership Development Programme (LDP). Overall, this pathway leads to QTS status and a Postgraduate Diploma in Education and Leadership (PDEL), the equivalent of a Masters qualification.

Appendices

Researchers in Schools (RIS) is another employment-based teacher training programme delivered by a charity. 'The Brilliant Club' recruits Doctorate researchers who have completed or are close to finishing a PhD in specified subjects such as maths, sciences, engineering, computing, geography, English and languages.

During this two-year course, trainees achieve QTS in year one and complete NQT in their second year. In an optional third year, RIS trainees may also participate in leadership training which leads to qualification. Throughout the programme, trainees spend one non-teaching day per week conducting, promoting and disseminating their own academic and educational research, and delivering outreach interventions aimed widening university participation.

Other school-based routes now include:

Premier Pathways, a two-year, salaried teaching programme in Buckinghamshire, where graduates work as support staff in their first year and as unqualified teachers in the second to gain QTS and a PGCE.

Graduate Teacher Programmes (GTP), a further employment-based route based in Wales which takes only one year, with particular incentives for priority subjects such as maths, computing and sciences.

Now Teach (established 2016), a school-based course for career changers who have an undergraduate degree.

'*Troops to Teachers*', a two-year employment-based programme with one day a week at university, which encouraged non-graduate ex-service personnel to retrain in teaching

The *Future Teaching Scholars* scheme (2017), a six-year programme for A-level students planning to study physics or maths at degree-level.

The *Postgraduate Teaching Apprenticeship* (2018), recently introduced, which will operate in a similar way to School Direct.

9.1 School-based teacher training routes

There are, additionally, teacher training courses especially designed for those intending to work with 0-5 year olds (Early Years Teacher Status - EYTS), or in FE (PGCE/Diploma in Education and Training in the post compulsory sector), but these are not relevant to this study as only secondary-school teachers were recruited.

9.2 Extracts of coding of F1 and NQT data in NVivo

F1 data

Pharmacists
 Nurses
 Microbiologists
 Social worker
 Porter
 Physiotherapist
 Outside agencies
 Occupational therapist
 Nutritionist
 G.P.
 Dietician
 Social & emotional
 Progress of learner_Learning & feedback
 Practical support
 'On the spot'_Learning & feedback
 Info & advice_Ward culture
 Info & advice_Practical
 Info & advice_Clinical

Coding Density

GIN (generalised incident/narrati) x

Reference 1 - 38.80% Coverage

I was doing quite a lot of em admissions as that was the role for this week as this was my role for this week so I was clerking in the colorectal patients em seeing transfers for the intestinal failure patients seeing the urology patients and also seeing the patients being admitted for breast surgery as well and in doing this I came across em different surgeons and different teams doing things differently em for example most of the well this is what I learnt during the week em most of the colorectal surgeons like their patients to have cleaxane the night before em most of the breast surgeons like their patients to have cleaxane em the night before eh but the urology surgeons don't like the patients to have cleaxane the night before em and then there's other things like for the colorectal patients some surgeons like the patients to have bowel prep before surgery and some of the surgeons like the patients to have bowel prep the night before others like the patients to just have an enema in the morning of the operation em and it all got quite it all sort of gets quite confusing and some which I found quite difficult em and something which I can't really be prepared for you know and it's just something I suppose you'll learn with em experience in the ward but it makes it very difficult for us because different surgeons like different things and you don't want to em annoy one of the surgeons by doing the wrong thing for their patient you know you want to do what they like but it's very difficult because em it's hard to keep up and it's hard to remember what they all like em and this is something I don't really think they can prepare you for when starting work but I think it's something that em you probably find very difficult when you do start in surgery em just sheerly based on just have to learn what surgeons like what em but I found that quite difficult and often you have to go to the the nurses and just say em you know what what does this surgeon like their patients to have because often they worked in the ward for years and they know em the ins and outs of the surgeons better than we do.

Undermining Junior
 Rescuer
 Pushy Junior
 Proactive Apprentice
 Patronising Senior
 Patient Advocate
 Parental Figure
 Miscellaneous

Knowledgeable Colleague

Intimidating senior
 Inaccessible Expert
 Helping Hand
 Grateful Apprentice
 Good Mentor
 Friendly Newcomer
 Diplomat
 Dictator
 Deferential Apprentice
 Critical Senior
 Bully
 Approachable Senior

Coding Density

Reference 2 - 7.13% Coverage

FFYB12: That the first sick patient that was I felt totally um unprepared for that um not sure whether or not to give oxygen as to- because there was a CO2 retainer as a lot of them are in certain departments and wondering how much to go up to saturations of sixty if they don't go up do I give them more and when do I call for senior help take over before I do anything or after I assess or after I sort of treat um but as I said the nurses were brilliant they didn't let me move on from B until I had it complete and then gone on to C and they're like okay well like ring your SHO and you keep going there so it was a great great help

INT01: Okay

FFYB12: To having support from experienced nurses

INT01: Mm mm

FFYB12: And then from then a senior coming on after

INT01: Do you think these situations you felt more prepared amongst your colleagues

FFYB12: Um because I was on my own in that situation I felt really unprepared but then getting feedback from my senior they said you did it really well and then getting confidence from that so then to feel as if you are prepared for another situation to come

INT01: Okay

FFYB12: To know what to do so-

NQT data

- Size of school_department
- Physical layout of school_departments
- Departmental resources
- Wellbeing and teacher rights_training
- Tailored inductions_training sessions (based on gaps vs one-size)
- Shared departmental resources
- PPE time spread across week
- Opportunities to meet other NQTs (conferences, forums, networks)
- More positive_constructive feedback (overall progress)
- More non teaching time (for NQTs and seniors supporting them)
- Mindfulness and wellbeing coaches
- Mentoring separate from assessment
- Mentoring from staff outside department
- Longer NQT period
- Less bureaucracy and measurement
- Lectures_courses on aspects of teaching for NQTs
- Improved inductions_e.g. guidance to computer system_resources_schemes of work
- Encouragement_permission to observe others teaching_in_outside department
- Better SEND training_intro to SEN team
- Offered_initiated by OTHER member of staff
- NQT initiated_requested
- Not mentioned or not clear from narrative
- Informal_reciprocal (e.g. chatting together, initiated by both parties)
- Formal support system_regular & planned
- Checking in_asking if need help (general or specific)
- Seeking alternative sources of support
- Reluctance to bother
- Reciprocity_helping others_contributing
- Making contacts
- Initiating learning experiences_requesting feedback
- Emphasising competence & autonomy (perceptions of support)

Coding Density

GIN (Generalised incident narrat. x)

Reference 4 - 4.06% Coverage

but I'd say going back there's no- there's been nothing external, erm no-one that's come in

I: Right

P: and I think, maybe that's somewhere they could be missing a trick

I: Yeah

P: I think, not just getting someone or like an- a experienced teacher to come in but maybe if there was a system for NQTs just to sort of from maybe around the local area to go to forum or hav- have or a conference or something

I: Yeah

P: where we can sort of get together and bounce off each other sort of find out what works for each other

I: Yeah

P: I'm sure there are systems in place like that but I'm not aware of them

I: Yeah

P: so if there are then it would be beneficial for me to be aware of them erm cos at the moment I'm not being honest though I've not really looked into it myself I've not researched it I've not gone out of my way to say I wonder if any NQTs can help me

I: Yeah

P: so I guess that would be partly my fault but, at the same time, I'm not aware of it so ()

I: so you'd like the other NQTs so you can share experiences

P: Yeah

I: It's that kind of yeah

P: Yeah and just, yeah just bounce off each other and then erm, it would be good cos I- I remember when I was doing my training, erm we had residential, erm as well as doing my PGCE

I: (Mmm)

P: We had residential and erm, during the resident- residentials we had guest lecturers come in from our- externally outside the uni

I: Oh nice yeah

9.2 Extracts of coding of F1 and NQT data in NVivo

Size of school_department

Departmental resources

Wellbeing and teacher rights_training

Tailored inductions_training sessions (based on gaps vs one-size)

Shared departmental resources

PPE time spread across week

Opportunities to meet other NQTs (conferences, forums, networks)

More positive_constructive feedback (overall progress)

More non teaching time (for NQTs and seniors supporting them)

Mindfulness and wellbeing coaches

Mentoring separate from assessment

Mentoring from staff outside department

Longer NQT period

Less beauracracy and measurement

Lectures_courses on aspects of teaching for NQTs

Improved inductions_e.g. guidance to computer system_resources_schemes of work

Encouragement_permission to observe others teaching_in_outside department

Better SEND training_intro to SEN team

Offered_initiated by OTHER member of staff

NQT initiated_requested

Not mentioned or not clear from narrative

Informal_reciprical (e.g. chatting together, initiated by both parties)

Formal support system_regular & planned

Checking in_asking if need help (general or specific)

Seeking alternative sources of support

Reluctance to bother

Reciprocity_helping others_contributing

Making contacts

Initiating learning experiences_requesting feedback

Emphasising competence & autonomy (perceptions of support)

Coding Density

<

GIN | generalised incident narrat | X

P: and they would, some of them, had some re- like really brilliant erm lectures

I: Yeah

P: found it was like sortof really beneficial and quite inspiring, and i just thought something like that would be brilliant for NQTs cos you're almost, once you're qualified you're sortof left out, to just get on with it, there's no

I: Yeah

P: there is sortof CPD and professional development within the school

I: Yeah

P: but it's not based on, y- your teaching and learning it's more just sortof school policies

I: Yeah

P: so it would be quite nice just almost as a refresher, just to sortof have those extra, that extra bit of support

I: To keep thinking about your professional development?

P: Yeah

I: Yeah

P: but mainly sortof th- the actual teaching side of things

I: Yeah

P: i'd say

Appendices

PIN (personal incident narrative) x

Reference 5 - 2.54% Coverage

So with erm, the example I gave earlier with- when I was on the astroturf, because there was no-one else around I just thought there's no point, parking them with teacher cos, they're not physically escorted so if I sent him off

I: Yeah

P: The mood he was in I don't think he would have gone to that lesson

I: (laughter)

P: He would have just

I: He would have not got there

P: Yeah um (laugh) so that's why I got on call () but erm, in terms of that support around during the lesson I think that's mo- () I don't think that's, support for me it's more just for the students, for the r learning

I: Yeah

P: It's not saying I'm not-y'know I-I- I won't () interrupt a lesson to say oh can you give me some advice on how to deal with this

I: No

P: I just sort of- I just sort of deal with it and, but then talk to them afterwards if needs be and just sort of say oh do you think that was the right decision? Was that by the book or

I: Sure

P: or whatever, erm () so yeah I-I- yeah I don't- I don't th- personally I don't think as an NQT, during lessons you should, have- you should be needing support

I: Right

P: in terms of, erm actual teaching content or anything it-

I: No

P: it's more sort of dealing with, erm situations such as behaviour

I: Yeah, which- which are gonna arise I guess in any

P: Yeah

I: classroom

P: absolutely, especially in the state schools

I: Yeah

Seeking alternative sources of support
Reciprocity- helping others- contributing
Persistence- not speaking up
Making contacts
Initiating learning experiences- requesting feedback
Emphasising competence & autonomy (perceptions of support)
Coding Density

9.3 Chart summarising teacher participants' data against major themes

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
NQT1	<p>Very few instances of support narrated.</p> <p>Most support was provided by one teacher in their department (not their mentor) who subsequently left after the first term. Their NQT mentor provided some support with planning lessons. They also received a new mentor (after the first left), based in a different department, who gave positive, constructive feedback.</p> <p>This participant also received advice and social and emotional support from their union.</p>	<p>[DEPARTMENT RESOURCES] No shared departmental resources available. "there was no stage four data, resources, there was nothing in the system, which was really hard, y'know because being as a new teacher still, newly qualified, some of the texts that we're doing I've not obviously studied at my GCSE years, yonks ago"</p>	<p>[TRAINING & SOCIAL EVENTS ORGANISED BY SCHOOL, ACADEMY or LEA] Weekly school CPD sessions were described as useful and enjoyable. "the CPD was actually brilliant [I] totally enjoyed that and also, they're just talking about what other, erm [I] other things that other teachers could actually do and what works and just that sort of erm [I] sharing of resources as well, and of course training with, safeguarding and all these sorts of stuff really"</p> <p>[STAFFING & COMPOSITION OF TEAMS] Subject mentor was also a member of SLT and therefore mentoring meetings were sometimes interrupted.</p> <p>Several teachers joining and leaving the department within the same year, one teacher shared feelings with the participant that they had also felt unsupported.</p>	<p>[DEPARTMENT AND TEAM CULTURES] The school as a whole felt very supportive, but their subject department was felt to be cliquy and intimidating compared to their previous experiences on placements. A request for help with resources was met with criticism, they received negative but vague feedback, and the NQT felt inhibited from asking seniors for support because everyone felt 'so busy'. The NQT described not feeling 'included', feeling 'worthless' and that whatever they did 'just wasn't enough'.</p> <p>[INTERPERSONAL RELATIONSHIPS] This NQT narrated interpersonal conflict with their head of department in particular. The NQT ultimately left the school after an incident of 'unprofessional' behaviour by their department head and a lack of support, after the NQT had experienced a personal loss.</p>	<p>One instance was described where another teacher had used the NQT's resources [RECIPROCTY/HELPING OTHERS] but it appeared that not many opportunities for this type of reciprocity arose. Instead, most coding under this theme referred to ideas of [PERSISTENCE & NOT SPEAKING UP] "I thought no, I can get on, I can get through this, I'm just gonna carry on and do my bit, I've got my [I] this is a permanent post, I'm gonna finish my NQT"</p> <p>"my new mentor after the first mentor left [I] picked up on the fact that they, took a dislike to me somehow, and [they] said no-no-no focus on the positive there [I] and I said, oh yeah it's fine I said I'm gonna get on with it and just, y'know."</p> <p>The union suggested that the incident with the head of department might be related to the NQT's nationality, but the participant decided that they weren't 'really gonna go into that'. They described having now moved into cover work to rebuild their confidence.</p>	<p>Given their stories of feeling unsupported within their department, this participants suggested that "the NQT's need to have, need to have somebody there that really do, they could talk to about, pretty much everything, I think [I] outside of the department"</p> <p>Due to factors such as high workload (e.g. marking) and the need to build up subject-specific knowledge not gained during their PGCE (for instance, when new courses have been introduced), this NQT suggested that a two-year NQT period might also be useful.</p>
NQT2	<p>Weekly meetings with their subject mentor, and ongoing informal support from teachers within their department, especially the department head.</p>	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] Potentially isolated due to working outside. However, this was mostly negated by there being a good 'on-call system' and senior teachers often working nearby. The existence of a shared departmental office meant that they saw their colleagues 'every day'.</p> <p>[DEPARTMENT RESOURCES] Their main subject department kept a shared folder with</p>	<p>[INDUCTION PROCEDURES] This participant described receiving a good induction programme over eight to ten weeks, delivered by members of the SLT, which covered both professional skills (e.g. classroom management) and introduced them to new roles (e.g. being a pastoral tutor).</p> <p>[STAFFING & COMPOSITION OF TEAMS] They also felt 'very lucky' regarding the composition of their experienced department, all the teachers have been teaching for, I'd say about ten plus years".</p>	<p>[DEPARTMENT AND TEAM CULTURES] This participant described their office as 'friendly and approachable', as an environment where 'everyone's sort of bouncing off each other', and where they felt like a 'valued member of staff'.</p> <p>In particular, their head of department would "often just check with me, y'know how- how's it all going anything, I can help you with, which is refreshing [I] it wouldn't be a formal thing it would just be perhaps if- if her and I were just in the office together cos we have a [department] office, so it could just be a normal conversation like how is everything going by the way."</p>	<p>Coding under this theme tended to focus on [COMPETENCE AND AUTONOMY], with a lack of need for very much support and emphasising that any support provided was available to all staff, not just NQTs</p> <p>"and then if needed I guess she'll give us support but for me because [I] like to think that I'm doing alright [laughs], I'm doing quite well and, y'know [I] she was, very complimentary in my debrief erm in my feedback, so I don't think I needed that extra support, from that point of view"</p> <p>[INITIATING LEARNING EXPERIENCES or REQUESTING FEEDBACK]</p>	<p>This NQT felt that they would appreciate more opportunities to meet other NQTs and to do continuing professional development, as school CPD tended to focus on things such as policies rather than teaching and learning.</p> <p>"I remember when I was doing my training, we had residential and during the residential we had guest lecturers come in from outside the uni [I] some of them, had like really brilliant erm lectures, found it was really beneficial and quite inspiring, and I just thought something like that would be brilliant for NQTs cos you're almost, once you're qualified</p>

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
NQT3	This participant narrated instances of support from a range of staff across the school. They had continual dialogue with their NQT mentor, both during formal meetings and after school. A member of SLT (their line manager) 'checked in' on them regularly during PPA time, offering help and advice. They obtained specific advice about additional needs such as autism or dyslexia from the head of SEN and their TAs. A head of house provided behavioural support directly to children who were experiencing anxiety or 'friendship issues' which helped with 'taking the workload off' the teacher. Other NQTs were available for social and emotional support. Finally, they were very positive about using Twitter as a support tool.	numerous resources available such as presentations and worksheets. For their second teaching subject, the department subscribed to various websites which had 'worksheets and content'.	[TIME ALLOWED FOR CPD ACTIVITIES] The school supported the NQT's desire to observe a teacher in another department by allowing them time off from their timetable and arranging cover for their class.	[PERCEPTIONS OF OTHER STAFF & ROLES] They described the support of a teaching assistant in their lessons as 'useful', seeing them as an 'extra pair of hands for the challenging students'. They were happy to approach the head of their second subject, but expressed reluctance to 'bother' other teachers in that department, because 'personally I don't think it's their role to help me [] I just feel like, they've got enough on their plate'.	They also described having arranged an observation of a teacher in their second subject department. [RECIPROCAL/HELPING OTHERS] Another story described how they helped another NQT in their department "so y'know sometimes, she'd come to me and say oh, what would you do, for this group doing this activity or, it's so- it's nice cos they ask you as well for your bit", suggesting that feeling of contribution were important.	you're sortof left out, to just get on with it" They also thought it might be useful to receive an indication of their general progress and ability as teachers, with constructive feedback on how they could be 'even better' and 'raise their standards', rather than simply 'doing enough to get by'.
NQT4	This participant described their main sources of formal support as being	[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] The physical layout of their department and it's large size [SIZE OF SCHOOL OR DEPARTMENTS] meant that there was always support from others available nearby if required. However, the fact that the school operated on a split site meant that the NQT was unable to get support from the only other person who taught the same A-level course.	[AVAILABILITY OF MENTORS & SENIORS] The NQT's subject mentor was readily available outside of mentor meetings on an informal basis. [WHOLE SCHOOL SYSTEMS] The efficient 'on-call' system dealt with any issues of truancy or difficult behaviour, freeing up teachers to get on with teaching the class. [TIME ALLOWED FOR CPD ACTIVITIES] This participant had been sent on one training course mid-week by the school, but were unsure whether they would be allowed time off for other training and had arranged to see another teacher to learn about a particular equipment resource during a combined lunchtime and PPA period. [TRAINING ROUTE] Obtaining a job in the same school where they had completed their school-based training course, meant that this NQT already 'knew everything in terms of the school'.	[DEPARTMENT AND TEAM CULTURES] This participant felt that all staff were supported in their department and that there was 'a real value placed on NQTs'. [PERCEPTIONS OF OTHER STAFF & ROLES] They told positive stories about TAs in the classroom, citing their in-depth knowledge of specific children and their needs, and described working collaboratively with TAs to support the class as a whole. This was achieved by giving them a lesson plan but also by allowing them a lot of autonomy, as she felt she could 'trust them' to go 'off-piste' and get on with it. "There was quite a lot of work happened at the beginning of the year but now they know that they are within their rights to do whatever they fancy because they're another adult in the classroom [] they have the same authority [] and because of me teaching last year as well, I've got really good relationships with lots of the TAs".	[COMPETENCE AND AUTONOMY] This participant described an instance of being put in charge of a school theatre trip as being a CPD activity. Whilst they had 'been able to take control as much as possible', they had also been supported by another department member to do the paperwork, and had been given previous 'scaffolded' experiences of running trips, without the 'planning and risk assessment and, getting permission slips back', so that on this occasion 'this next trip when we finally go will be my trip, completely'. [SEEKING ALTERNATIVE SOURCES OF SUPPORT] They also demonstrated agency in looking for alternative sources of support with their A-level course, by finding a teacher on Twitter who then helped them plan their lessons.	This NQT spoke very positively about the value of social media, in this case Twitter, as a support tool. "I think that, as an NQT, right there at the beginning, I wish someone had told me how good Twitter was as a support tool, because, I use that so much the like amount of teachers who are posting entire lesson plans on there [] and there is lots of really positive discussion happening on there [] and I don't think it's broadcast, enough [] people are amazing on there and we'll just share things they don't want any money, they just are lovely people [] before you plan any lessons look to make sure no-one's made it before that you can, change it round, because that saves me so much time now."
		[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] Having senior members	[TRAINING ROUTE] Having done their training within the same school the year before, this	[DEPARTMENT AND TEAM CULTURES] This participant described how socialising with the rest of their	[COMPETENCE AND AUTONOMY] This participant, on the one hand talked about not needing support,	This participant disliked the bureaucracy that surrounded the measurement of NQT progress and

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
	<p>their subject and school-wide NQT mentors, with informal support also being provided by other NQTs and NQT+1s in their own and other departments. They also looked outside the school to their Teach First trainee network for inspiration and ideas.</p> <p>They did not have a TA in their classroom during the NQT year, something they had found useful in their previous year of training.</p>	<p>of the department next door and their second department opposite meant that 'physically' they didn't 'feel isolated' "people tend to pop in so I don't really feel like I'm on my own". There was an NQT+1 in another department nearby who they could go and speak to easily, and another NQT on the floor below them "so I sometimes bump into her as well".</p> <p>However, after moving to a new school site, the separation between departments meant that they rarely saw 'anyone outside of it anymore' whereas previously they had mixed with other teachers when using a shared stairway, and also during their training year when had to move around the building due to not having their own classroom.</p>	<p>NQT felt "quite settled within it and I'm quite happy to go talk to people about it and everyone's very welcoming, which I appreciate I'm quite lucky cos y'know some people don't have that".</p> <p>However, they felt that a drawback of this training route was that they had 'lost a good chunk of training that would kind of help me understand' the observation and grading process, as feedback on how to improve was sometimes a bit vague; for example, 'more differentiation' without explanations of 'how you can differentiate'.</p> <p>[STAFFING & COMPOSITION OF TEAMS] They also felt that having a 'young' department was an advantage, as the NQT+1s could support them "with the kind of things that I'm coming up against specifically as an NQT" and it meant they were "more kind of in it together with a lot of the things I we're, we're encouraged to kind of use each other's strengths and erm discuss our weaknesses and try and- to help each other".</p> <p>The fact that members of the SLT in their school had less teaching time made them more readily available to provide support. However, having a mentor who acted in dual capacities, to formally assess the teacher against standards in addition to informal observations, meant they tended to avoid asking them for feedback.</p>	<p>department after work, such as pursuing common sporting interests, contributed towards the positive feel of the department and made it feel more natural to seek support from others, "I think erm I cos we're quite jokey when we do all that sort of stuff that kind of moving into kind of talking about more professional things it, at first felt a bit awkward I feel that I could ask them anything now I y'know we're there for work but we're also kind of we like working- working with each other and we like hang out with each other, erm I feel like I could ask anyone for help because of it "</p> <p>[PERCEPTIONS OF OTHER STAFF & ROLES] This NQT expressed the idea that their Teach First network, as well as the NQTs and NQT+1s in the school were more open to fresh ideas than long-standing members of the department "within my department there's very few people who kind of look at I new ways of doing things or I other, more research based approach to learning y'know how i- they should be teaching, that's fine cos er they've been there a lot longer but for someone who's new to it, it's nice to have somebody you can talk to about that really".</p>	<p>viewing this as a possible weakness, but also framed their support-seeking as agentic behaviour. "I, so do you feel like you're part of a wider team?"</p> <p>P: Yeah definitely I don't feel like I'm I er a weak link or a trainee or anything compared to everyone else, well I feel very kind of part of it but I think I, I dunno I don't feel like I erm like I need support really to be honest I but I feel like I- I the reason why I've kinda got on so well in my department cos I do, I look for help I do ask for help with all that sort of stuff".</p> <p>They emphasised their autonomy in doing their job, such as developing their own resources, and felt that their enthusiasm and mindset meant that 'people kind of want to kind of give me stuff to do' such as sending them on additional CPD activities or pairing them with teacher trainees who were on placements.</p> <p>They also talked about being able to contribute to the department [RECIPROCITY/HELPING OTHERS], which they felt was partly due to the school-based training route they had pursued. "I imagine going in as an NQT without that like kind of have to show everyone that, that I c- I have the training I can do this, I'm not someone who's bringing down the department I our department's very, very young but there's also lot of issues with it and, erm I feel like a lot of the time we have to be strong to pull up others that are struggling, I so feeling like I'm helping and an asset is really nice".</p>	<p>felt the expectation of a 'linear' journey of progress did not match every NQT's real-life experiences. "you've got to show progress over the year, you're meant to start at a low point I and you're gonna progress up I we're- we're meant to be struggling at the start and be amazing at the end I erm it's good going standards, I think it's a good way of kind of checking you're doing all of these things but the write-up at the end always feels a bit weird, like you have to come up with a target for each standard I and I feel like the NQT year should also be kind of considered I as a, more I dunno I to just kind of let you get on and learn a bit (laughing)".</p> <p>On the other hand, they felt that there was an argument for providing even more support to NQTs if the aim was to "come out with NQTs who are really amazing at everything cos you've really hit every nail on the head".</p>
NQT5	<p>Most of the support described by this NQT was from within their own department, which they could access very</p>	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] Having a faculty area meant that this participant saw other</p>	<p>[STAFFING & COMPOSITION OF TEAMS] This participant subject mentor was also the department head and they found it difficult to organise formal meetings due to lack of time.</p>	<p>[DEPARTMENT AND TEAM CULTURES] This NQT felt as though their department was approachable and easy to talk to "I think it's all fine just as long as, there are people there</p>	<p>[MAKING CONTACTS & BUILDING RELATIONSHIPS] This participant felt that the success of their NQT year was partly down to the support network of their</p>	<p>This NQT appreciated the freedom they had to personalise their resources such as presentations and lesson plans, but found that planning took up a large amount of time, so</p>

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
	<p>informally whenever it was needed. For example, chatting over lunch, and discussing how best to teach an older (sixth form) age group. However, they also had friends in different departments across the school, feeling that "there's so many people I could talk to if I had a problem".</p> <p>[DEPARTMENT RESOURCES] The NQT narrated that 'the only thing, that I've really struggled with' was a lack of organised department resources, compared to other schools they had been on training placements at - 'a lot of schools just have it all there, in synch in nice PowerPoint'. This meant that they tended to create all of their own planning and resources, which took a great deal of time.</p>	<p>members of their department at lunches and breaks, and the close proximity of their classroom to the staff room and classes of other teachers meant that support was on hand "cos it's a- y-know we have all the faculty rooms near each other so, there will be someone around".</p> <p>[DEPARTMENT RESOURCES] The NQT narrated that 'the only thing, that I've really struggled with' was a lack of organised department resources, compared to other schools they had been on training placements at - 'a lot of schools just have it all there, in synch in nice PowerPoint'. This meant that they tended to create all of their own planning and resources, which took a great deal of time.</p>	<p>However, they managed to work around this by meeting early before school, or when they had a free period together, so that mentoring support was more informal.</p> <p>The department was mostly comprised of more experienced teachers, and the NQT felt this was the reason they didn't have shared many shared resources available, because those teachers could "just pick it up talk about it and come up with tasks off the top of their head".</p> <p>However, the fact that the school was also a 'training school' with new trainees coming through regularly, was cited as a reason that all of the staff were more 'aware of what you have to go through' and 'sympathetic to the struggles' of PGCE and NQT students.</p> <p>"if you're not a training school and [] you qualify even six years ago or something, you completely forget that you didn't have the ability to plan a lesson in fifteen minutes and that sort of thing".</p> <p>[INDUCTION PROCEDURES] The induction program had been an opportunity to meet another NQT from another department, from whom they described receiving "a lot of social and emotional support". Regular training events were also provided by the school every half term covering topics like - what to expect from the role.</p> <p>[TIME ALLOWED FOR CPD ACTIVITIES] The school also supported their wish to attend CPD activities by allowing them time out of school such as learning to be an exam moderator. "They have the big picture of what they're gaining every time they let someone out to do more stuff, and erm I'm going to a big CPD session in</p>	<p>that are willing, to talk to you and help you I think that's what you need, whether it is formal or informal, you need to feel like you can say () I need help and someone's gonna help you".</p> <p>During lunch and break times, the staff were 'laughing and joking' and it felt like a 'really nice environment', which was different to some of the other departments in the school, and meant they could seek informal advice at any time "as soon as a problem pops into my head I ask whoever's around and I get an answer". They also had a departmental WhatsApp group, which provided social support, built 'feelings of friendship' and gave them a space to talk about things which had happened at work.</p> <p>This participant felt that the department were "really supportive of people having a life" and that this "does ball down to your head". Their head of department (and subject mentor) took time to help the NQT on the spot as needed; for instance, helping them understand how to teach a new topic. They also set out realistic expectations for the first year, acknowledging that teachers were not wholly responsible for students' exam results, and that at times they might teach 'terrible lessons' but they wanted them to 'get through it', meaning they didn't feel under 'too much pressure'.</p> <p>[PERCEPTIONS OF OTHER STAFF & ROLES] This NQT was not keen on having TAS working in the classroom. "I just try and () not clash with them [] I just sort of () get on with it and () work around them rather than, I don't feel like I work with them.."</p>	<p>department but also due to their efforts to build wider social networks "It's just yeah integrating yourself like I worked quite hard to integrate myself into the school in the beginning and it's really paid off [] I knew a few people from training here that were in a couple of other departments, and I made sure I kept seeking them out and y'know built on that".</p> <p>[COMPETENCE AND AUTONOMY] They also described how being given responsibility was good for their professional development. Although they had felt a 'bit nervous' about taking on exam classes, their head of department had expressed trust in their ability, and reflecting back they talked about the benefits of being '[chucked] in at the deep end', in terms of gaining experience and feeling part of the team. "There's a risk of not having enough experience in your NQT year, which then if you don't want to stay in that school can really limit you [] when you wanna apply for another job [] I almost feel like some schools can like, use kid gloves on NQTs and, I'm not sure how good that is for them really, I feel very much part of my team".</p> <p>[RECIPROCIITY/HELPING OTHERS] This participant also talked positively about 'everyone using my lessons', which made them feel like "there's no difference between me and anyone else there, and the fact that they're using my resources and things like that shows that they see me as an equal [] I wouldn't want to be in a department where I felt, like one rung below everyone else".</p> <p>[SEEKING ALTERNATIVE SOURCES OF SUPPORT] This participant did use Facebook groups to find resources but avoided</p>	<p>having shared departmental resources on the system would enable them to sometimes 'have a night off'. They would also have preferred that their PPA time be spread out across the week rather than several all in one day.</p> <p>In terms of general factors affecting support, they felt that in departments where seniors were under more pressure time-wise and having to hit targets, such as in English and Maths, then they would be more 'stressed out' and have less time to devote to supporting NQTs. It was therefore important to ensure that mentors themselves were supported.</p>

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)	
NQT6	<p>This NQT described support being provided in an informal, ongoing way by their subject mentor "where 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"</p> <p>They also received information and advice from other support staff due to a high number of children in their tutor group with 'significant needs'.</p> <p>"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 as well they're amazing so that's been really useful".</p> <p>This NQT had also worked with a team of keyworkers, a safeguarding coordinator and head of year, to support a specific child, and related other stories</p>	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] This NQT felt that they could get support whilst working in their classroom because "I've got some SLT offices next to my classroom, so, like if there's anything that goes on I can, can always call on there", and told a specific story about when the assistant head teacher had been on hand to assist with an angry child in class.</p> <p>The keyworkers (responsible for students' social, emotional and mental health), were based in a different part of the school, but used the same staff room which allowed them to 'catch each other'.</p>	<p>[TRAINING ROUTE] Training in the school the year before meant that already knew people in the school.</p> <p>[INDUCTION PROCEDURES] Despite this they still found the induction very useful, describing this as 'a really really good induction process from our assistant head' which consisted of a 'meeting once a fortnight [which] covered different things' such as how to access the IT system, where certain people were located, or the role of tutors. It had also been an opportunity to start 'talking to other members of staff', whether they be NQTs or those 'that had been teaching for fifteen years'.</p> <p>[TIME ALLOWED FOR CPD ACTIVITIES] This participant described their ability to attend CPD activities outside of school as variable "I have gone on some courses that I have requested and, some of them have been approved, because I'd needed cover and some have not, so that's I mean sometimes unavoidable but equally (y'know) sometimes it could have been done and hasn't, for whatever reason".</p> <p>They had attended a conference on a weekend, for which the school had paid costs, but they were reluctant to pursue opportunities during the week because "the process is quite (I) arduous and, you almost have to battle for it (I) so I think it's very</p>	<p>[DEPARTMENT AND TEAM CULTURES] This participant felt that the culture of their department and school made it easy to seek support "at no point did I (I) never felt, like it would be seen as weak if I went and asked for help (I) it's just the atmosphere and the like ethos of the school isn't (I) never feels punitive (I) they've always been really supportive and, have said, y'know we'd rather you come for help".</p> <p>Both their subject mentor and another teacher in the department shared resources with the NQT regularly. Also, if they emailed their department to requested resources they received 'ten emails back'.</p> <p>The school also felt supportive with regard to their social and emotional needs, as after an upsetting incident regarding a child, they were told "look go home we'll cover your classes don't worry about it we'll make sure everything's sorted erm, cos they could see how much it had really hit me, so at no point did I ever- was I ever made to feel, oh get a grip or don't be so stupid (I) they were really really good about it".</p> <p>This teacher did describe a situation of inter-departmental conflict, which had arisen after their department was singled out for praise, set against a culture of feeling they had to compete with other departments to get the best GCSE results and</p>	<p>getting involved in discussions because "there's a lot of erm, panickers on there as well it can be a bit toxic when you've got, people saying, I haven't finished the course yet has anyone else finished, don't you think this is really unfair don't you think this is ridiculous y'know, there's a lot of that".</p>	<p>[SEEKING ALTERNATIVE SOURCES OF SUPPORT] This participant talked about using Twitter as a way of finding inspiration, ideas and resources outside of their department, which provided an alternative perspective to how things were done in their own school.</p> <p>"I use Twitter quite a lot and I find that really useful and really helpful because you can connect with so many (I) people from different schools with y'know different ethos different atmosphere (I) and to see that people's different approaches (I) it's nice to see what other people in other schools are doing and how they're doing it and especially with there's many changes to the curriculum (I) y'know I say ask- ask for a specific resource for example, you get so many people saying, y'know I've got this and, well, this you can adapt it this way and they just give you so many ideas".</p>	<p>[No specific suggestions for improvement, as the interview came to an end before this question could be asked.]</p>

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
	<p>of support which mentioned an attendance officer, dinner ladies, and a speech and language therapist and educational psychologist who had both visited the school.</p> <p>There was one incident where a student behaved inappropriately towards the teacher, but when they sought help with this the school 'refused to really do anything' leaving them feeling 'completely unsupported'.</p>	<p>[STAFFING & COMPOSITION OF TEAMS] The NQT did not feel that there were enough teaching assistants for a school of their size. They also tried to find inspiration outside of the school on Twitter, because the staff in their department had worked together for so long that they tended to 'have very similar approaches'.</p>	<p>insufficient praise in general "Yeah I think it is partly about wanting to be acknowledged because I think in so much in teaching we don't get praise for things that you do, and it goes so un-noticed () half the time and normally the only time you really have contact with, people is when things go wrong, so y'know, the fact, if your results aren't good enough".</p>	<p>Agency (Theme 7)</p>	<p>Suggestions for improvement (Theme 8.2)</p>	
NQT7	<p>Many instances of support were described as being provided by a variety of people, including their mentors and schools partnerships officer, senior and other teachers in their department, as well as a range of admin and support staff. Advice was sought from the SEN team, TAs and HTLAs, safeguarding staff, an exams officer, attendance officer, and a family member outside school.</p> <p>This NQT had a change of mentor at the beginning of the year, which they had felt 'a little bit unsure about', but they had sought reassurance from their school partnerships officer and were gradually getting to know their new subject mentor through 'casual chats</p>	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] Working in their particular department meant they worked physically close to other members of their team, including senior staff.</p> <p>"with something like PE you kindof see each other all the time [] we're all in [the] same area for a lot of the day, y'know in-between lessons and stuff it's not like you're in your own classroom and you don't really see people [] and you know that [senior] member of staff is also sharing, the all weather pitch with you". The office space this NQT used had "a load of different subjects in it [] so there's always someone around to help you out"</p>	<p>[STAFFING & COMPOSITION OF TEAMS] This participant described how having a mixture of lots of newly trained teachers in the school as well as more experienced teachers was an advantage, as they both had strengths to offer "it does work both ways they help us out and we help them out I think, with us being sortof fresh young excited NQTs that's just started, we've got a lot of ideas that y'know them be- working together and work in the same place for fourteen-fifteen years whatever I think it's quite nice for them to have someone else come in, so we kinda () bring that excitement back into the department".</p> <p>[TRAINING & SOCIAL EVENTS ORGANISED BY SCHOOL, ACADEMY or LEA] Attending training courses for "all the NQTs in our school and NQTs from other schools around the area" gave them an opportunity to swap ideas, information, tips and experiences.</p> <p>[WHOLE SCHOOL SYSTEMS] The behaviour support system</p>	<p>[DEPARTMENT AND TEAM CULTURES] The department was described as 'really friendly' and they all got on well as friends, which made it easier for them to have 'a winge or moan' and ask questions. "in our department I don't feel like any question is a stupid question, y'know you've got a friend there to actually help you rather than just a- sorta- another teacher who's working alongside you, it's quite nice environment to work in"</p> <p>There was a culture of sharing resources amongst NQTs in the department and the participant " [didn't] understand when people, have an idea and they want to keep it to themselves [] we're all in it for the same reason you'd like to think everyone is a teacher surely to give a kid some knowledge or improve a child's life in some way, why would we hide some good resources".</p> <p>[PERCEPTIONS OF OTHER STAFF & ROLES] This participant described other new teachers as having 'the young NQT mind' and saw them as 'someone</p>	<p>[MAKING CONTACTS & BUILDING RELATIONSHIPS] This participant described making conscious efforts to get to know people and build up wider support networks within the school, such as with the attendance officer, exams officer and PA to the head.</p> <p>"you don't need to know exactly who someone is or () go out of your way to do anything special, I just popped in to say happy birthday and then this whole conversation about Are you alright, do you need any help kindof thing [] sometimes I'll just pop in [] just nice people that you don't always get to see but when you do see them [] that sortof makes me feel supported and like there's always someone there that you can go and chat to or whatever it might be".</p>	<p>This participant felt their induction training had involved a lot of repetition and redundancy, and that a tailored programme more responsive to NQTs' actual training needs and gaps in knowledge would be a better use of their time.</p> <p>"I think asking NQTs more what they need support in in that first couple of weeks rather than () when you go in they kindof give you a programme [for] the year and some of it is stuff you've already done and I can understand obviously they wanna make sure that you understand safeguarding or behaviour management, but they are things that literally when you're training [] those are basically all the things that you learn, and it's quite tedious sometimes to sit through another behaviour management session [] if there's a load of NQTs it might be difficult to orchestrate [] but some kindof room at least for () some movement some adjustment [] I feel like I could be doing something more helpful going networking with another school or [] marking or</p>

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NQT8 (interview and survey)	<p><i>throughout the day</i>.</p> <p>The whole school was perceived as friendly, "y'know everyone you walk past in the corridor is, says hi and- and stuff like that especially in the first few weeks when I started". The NQT told one story where, after a medical procedure which limited their mobility, a teacher they didn't know had offered them transport home.</p>	<p>The SEN department was described as 'really close if you ever need to speak to them'. They also had regular contact with the attendance officer and the exams officer, whose offices were also very nearby to where they taught.</p> <p>[SIZE OF SCHOOL OR DEPARTMENTS] The size of the school meant that they always had a lot of new trainees coming in, and the NQT felt it was 'interesting to see different people come into the department' who had different experiences.</p>	<p>meant that teachers could deposit children with a senior member of staff, and could also reach 'on-call' by email or phoning reception, and the 'pastoral team' were described as 'quite proactive', with the fact that these staff were often 'just there around' meant that they were readily available.</p> <p>"there's always someone close by and I think, pastoral staff are quite good at knowing which kids might need a little bit of extra support or which kids might be a bit a trouble and stuff like that and so they're often, wandering around anyway and checking that everything is fine".</p>	<p><i>else in my situation</i>', which seemed to contribute to the feeling of a safe space in which to try out 'all these, ideas that you would think that is never gonna work'. They could also gain social and emotional support from other NQTs as they might 'understand a little bit better maybe than one of the other experienced teachers'.</p> <p>They talked about teaching assistants in a positive way, appreciating them as a source of advice "so I obviously spoke to the teaching assistant and erm HTLA as well about erm a couple of kids and how can I engage them really, it's nice to have that kind of support [] they're always they're always willing to help, there's a load of different teaching assistants and people that work in that area and they're all full of great advice they work with those kids day in day out so they're, they're always the best people to go to".</p>	<p>[COMPETENCE AND AUTONOMY]</p> <p>This participant felt that as a mature trainee they were 'quite proactive' and so 'didn't really need much support or help, in that sense'. Also, although they did access shared department resources or those available on Facebook they saw those more as 'a template' and "much prefer making my own". As per NQT5, they expressed ideas that they were unsure whether their success was down to getting support or their own agency. "I'm don't know whether I've I found it so easy because I had a good support network or because I'm just willing to get on with it myself".</p>	<p><i>planning my lessons (laughs)</i>".</p> <p>They also felt that more initial training and information from their SEN departments as NQTs would have been usefuk, as although they had spoken to these staff 'off my own back' and 'as someone who's been a TA erm I try and sortof familiarise myself with, especially kids that I teach, that have got SEN needs', they found that due to high workloads when first starting out 'getting used to your classes and planning lessons and doing data' this aspect could 'get put to the bottom of your to-do list'.</p> <p>Therefore, it might have been useful during the time set aside for induction training for "someone from the SEN department to come in and sortof speak or y'know any of those other people that you mentioned [e.g. educational psychologists, speech therapists, social workers] just to highlight [] kids that are gonna be major issues or that have got specific, educational needs or disabilities or whatever it might be."</p>
	<p>This participant gained support mainly from teachers in their department and their mentors (subject and coordinator), but they also had wider networks outside of school. These included a teacher they had trained with, their previous PGCE mentor and a family member who was an experienced teacher, and they sometimes accessed resources via a Facebook subject group.</p> <p>Some types of support</p>	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] Due to the layout of the classrooms, in a school was housed in old residential buildings, this NQT was physically isolated from most other departments but very close to their team members "my head of department is next door to me so and we have like a clear glass door so I can just wave to her if I want to (laughs) [] we all just kindof pop our head in and ask questions or things like that".</p>	<p>[AVAILABILITY OF SENIORS AND MENTORS] Although this NQT did not feel they required much support, they found it easy to speak informally to their head of department or other teachers "I guess in like lunch and breaks and things we'll bump into each other or, like it's not hard to find someone because we're either in the staffroom or like in our staffroom or just in classrooms or something"</p> <p>[STAFFING & COMPOSITION OF TEAMS] Even though this participant saw themselves as a 'mature trainee' they were also 'in that building that I work in I'm definitely the youngest by about twenty years', which they</p>	<p>[DEPARTMENT AND TEAM CULTURES]</p> <p>This participant felt that they were in a 'very sharing department', that was 'pretty close' and 'really supportive'.</p> <p>"I'm always asking them to give their opinion or feedback and always get it."</p> <p>Other team members also said thank you to each other and gave lots of praise.</p> <p>[INTERPERSONAL RELATIONSHIPS]</p> <p>This participant did describe one story of conflict with another member of staff, which they did not feel they received much support to resolve from senior staff.</p>	<p>[COMPETENCE AND AUTONOMY]</p> <p>This participant felt that as a mature trainee they were 'quite proactive' and so 'didn't really need much support or help, in that sense'. Also, although they did access shared department resources or those available on Facebook they saw those more as 'a template' and "much prefer making my own". As per NQT5, they expressed ideas that they were unsure whether their success was down to getting support or their own agency. "I'm don't know whether I've I found it so easy because I had a good support network or because I'm just willing to get on with it myself".</p>	<p>[DEPARTMENT AND TEAM CULTURES]</p> <p>This participant felt that they were in a 'very sharing department', that was 'pretty close' and 'really supportive'.</p> <p>"I'm always asking them to give their opinion or feedback and always get it."</p> <p>Other team members also said thank you to each other and gave lots of praise.</p> <p>[INTERPERSONAL RELATIONSHIPS]</p> <p>This participant did describe one story of conflict with another member of staff, which they did not feel they received much support to resolve from senior staff.</p>

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	were described as more difficult to access. This participant talked about how their IIT coordinator, who was meant to organise all of the training for NQTs in the school was difficult to contact. In another narrative they related having contacted the SEN department for help with exam arrangements, but their problem had not been resolved.	SIZE OF SCHOOL OR DEPARTMENTS] Due to the large size of the school, this NQT felt that the department was their primary 'team'. [DEPARTMENT RESOURCES] Shared departmental resources were readily available. "So we had like an induction day the July before, and I figured out how to access the shared area and just literally took everything off the shared area and when I went in for my induction day they put everything on a memory stick for me and said this is everything we have, do what you want with it"	described as 'sometimes a bit hard' (suggesting they might have liked some other NQTs in their department) but they also 'kindof get on really well'. They described having 'a bit of a strange relationship' with their NQT coordinator because they were also a faculty head and they '[saw] her quite a lot' and "she's SLT as well so, I think sometimes she finds it hard because I have conversations with her that perhaps she shouldn't be having as an SLT member and she can give me kindof two sides of points of view which is quite nice". [TRAINING & SOCIAL EVENTS ORGANISED BY SCHOOL, ACADEMY or LEA] Although the school did run training days this NQT related that "because there's so many deadlines and things they want us to do we often kindof complain that they're wasting our time with training sessions we just want department time"		[RECIPROCITY/HELPING OTHERS] They also talked about ways in which they contributed to their and other departments, helping create career resources for older year-groups, running a fun school activity to boost teacher wellbeing, and taking on a temporary post as department head 'er which I shouldn't have on an NQT year (laughter)'. [SEEKING ALTERNATIVE SOURCES OF SUPPORT] This participant sought support from outside of the school through their union, when they needed professional advice. [PERSISTENCE & NOT SPEAKING UP] At the beginning of their first year, however, they recalled encountering problems when starting to teach a new course outside their subject area and a member of staff they approached for support didn't want to share resources, "so, it was kindof constant planning [and] I was essentially learning three courses, and teaching them at the same time [] it was a bit full on". They had not spoken to work about this but "kept it between me and my partner" and "when it came to half term I just dedicated a couple of days to it and got myself ahead and that's how just how I've always done it since [] but I imagine it will get to a point where I no longer have to do that because I'll have everything".	
NQT9	This participant mainly gained support from within their department but also outside of it from various support teams and the teachers in other departments. As NQTs, the new	[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] This participant described how there were 'three other teachers within knocking distance' and that 'probably most of the time, there's always a teacher free', so if	[TRAINING & SOCIAL EVENTS ORGANISED BY SCHOOL, ACADEMY or LEA] This NQT described how most of the training they attended was run within the school, but they also attended a conference organised by a regional alliance, which provided an opportunity to meet NQTs from different schools in their area.	[DEPARTMENT AND TEAM CULTURES] The school as a whole was related as being friendly and helpful, particularly towards newly trained teachers "if you say, I'm an NQT people are like Oh d'y- do you need any help? like they're really open to, helping or giving knowledge to you". Sharing lunch breaks together in the	[SEEKING ALTERNATIVE SOURCES OF SUPPORT] This participant described being proactive in seeking support from behavioural, pastoral, SEND and learning support teams, "I've been like Right I want to help that student, I'm going to go and see these people,	This participant felt that NQTs would benefit from more 'specialist SEND training', as it wasn't 'covered in great detail by the PGCE so that's a gap that most NQTs are gonna have it's not quite enough knowledge about specific needs". This was especially in the light of there being a 'dwindling' number of TAs in

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	<p>trainees also helped each other out <i>'on all the paperwork and stuff'</i> in a reciprocal manner.</p>	<p>anything occurred during lesson time one of <i>'the teachers would help you'</i>.</p>	<p>Both the school and department organised regular social events, which provided an <i>'informal way of getting to know [people] a bit better'</i> and helped build real relationships <i>'instead of just saying hi to someone in the corridor it's genuinely like Oh hi how are you, so yeah it's really nice'</i>.</p> <p>[WHOLE SCHOOL SYSTEMS]</p> <p>The on-call system for dealing with difficult classroom behaviour was described as very responsive, as a member of SLT would come <i>'pretty much straight away'</i>, which meant that <i>'it takes away () you having to deal with that student [] it gets dealt with I don't have to argue with the student and kick up a fuss and then it doesn't disrupt the rest of the class'</i>.</p> <p>[INDUCTION PROCEDURES]</p> <p>The NQT attended a day-long induction at the school the summer before starting, <i>'where they went through like all the paperwork, different bits and pieces, expectations'</i> and then regular sessions for all new starters from September onwards on <i>'how to use different computer systems, what to do in this situation [and] different procedures'</i>. They reflected on the difficulty of getting the volume of new information across to NQTs in one go without <i>'absolutely overloading you'</i> but <i>'some of the things we were learning later on in the term we were like Oh I could have really have done with knowing that at the beginning'</i>.</p> <p>They also felt that previously having a PGCE placement in the school had given them a head start in terms of knowing where everything was. <i>'I think, if it'd been a completely new school [] it would have been extremely overwhelming [because]</i></p>	<p>staff room was a sociable experience and the NQT expressed the feeling that <i>'there's no boundaries really'</i>.</p> <p>The NQT described their department as being <i>'really sharing'</i> and that <i>'no-one's scared to share resources or lesson plans'</i>. They related that whenever they had hit a problem, such as not knowing how to teach a particular topic, they felt that <i>'pretty much every teacher that I could go to has either just given me their lesson plan [] or given me a worksheet or explained to me, how they would break it down [] I don't think I've really ever come away feeling frustrated that I haven't been able to get help'</i>.</p> <p>As per NQT5, they reflected that not all departments in the school had such a friendly culture and this might be influenced by seniors in those teams <i>'[we] generally get on as a department whereas some departments don't, so I guess that could yeah depend on any school or department or the head of department could move and you could get a couple of changes and then the whole situation changes but at the moment it works really well'</i>.</p> <p>The behaviour unit in the school was also described as being <i>'really nice [] really helpful'</i>, which made it easier to approach them for advice. <i>'they completely understand that people don't really know much about, what they know, so [] you don't feel like Oh I don't know anything I'm- feel silly asking (that kind of thing), they'll just start from basics and tell you everything'</i>.</p> <p>Socialising together after school helped them get to know others in the school, such as a teacher from another department who had</p>	<p><i>whereas they say teachers don't often do that'</i>.</p> <p>[COMPETENCE AND AUTONOMY]</p> <p>This participant also talked about how, in addition to having a department which was <i>'absolutely fantastic'</i>, it also helped that they had a personality which was <i>'laid back [and] relaxed'</i>.</p> <p><i>'I'm quite calm and collected and I don't really flap and, I'm just y'know kind of take it in my stride, erm and they're like Oh you don't seem like an NQT and I'm like Mmm definitely am and they're like Oh yeah of course like we can go through this'</i>.</p> <p>They also described how some teachers didn't enjoy the frequent observations which happened across the school, but that they took a positive attitude towards these, seeing them as opportunities to learn. <i>'it's helped me change something or put it into practice in the classroom, so opposed to thinking of an observation as a bad thing, kind of like Oh okay what can we make better this time'</i>.</p>	<p>schools, and that more experienced teachers would assume NQTs had knowledge of specific topics such as autism which they didn't have.</p> <p>They also felt that having a <i>'network of other NQTs'</i> was really useful for being able to share <i>'little random pieces of information'</i>. This participant felt lucky to have that because of their familiarity with the school from their past placement, but reflected that other NQTs who might benefit from <i>'going on [an NQT] conference if you were the only NQT at your school, then getting to know other NQTs, and literally just maybe having someone that you can email, or message, to talk to about issues like Oh no this has happened to me'</i>.</p>

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<p>NQT10</p>	<p>This participant narrated a large number of instances of support, including from their head of department, mentors, other teachers in their departments, and NQTs across the school.</p> <p>In this school, a pilot had been run where a mindfulness and wellbeing coach offered free support to teachers. This person taught them 'strategies on how to cope with things' and 'completely different way', to 'stop yourself from getting stressed before you're triggered by something'.</p> <p>They had also approached previous PGCE mentor and their overall NQT mentor (IIT coordinator), for support with an issue with working hours, although that issue had remained unresolved.</p>	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] This participant described how they had 'the old head of department in the classroom next to me' which meant they could 'pop round ask her any questions if I'm ever stuck on anything cos she's right next door to me so she's always available'.</p> <p>[DEPARTMENT RESOURCES] The NQT's department had lots of resources on a "shared OneDrive so everyone can access all the resources from home, rather than just having to be in school like it used to be [and] we've got all of the filing cabinets in there with loads of stuff already photocopied".</p>	<p>[INDUCTION PROCEDURES] In July, before the NQT started work, the head of department "went through and sat by the computer with me, showed me where to get everything, made sure that it was all emailed so I had it all ready" which included information on schemes of work, assessment calendars, times of meetings, policies, lesson resources, and 'she went through a few ideas with me as well'. They were also given access to their new classroom and were 'emailing [the] head of department a little bit over the summer and met her in the corridor when I was doing up my classroom as well and just kind of asked any odd questions', before having a formal INSET day in September.</p> <p>[STAFFING & COMPOSITION OF TEAMS] This NQT described their department as 'very experienced', with some members of the team having "twenty years plus of teaching" which they felt was an advantage when asking them for support.</p>	<p>trained a couple years previously "we both go walking at the weekends as well erm so we just y'know went about school stuff, student stuff, and whatever it needs to, to be about".</p>	<p>[RECIPROCALITY/HELPING OTHERS] This NQT told stories about how the new teachers helped each other both in and out of school; for instance the participant had helped another NQT by going through schemes of work after school, and in turn the other NQT had 'been there for emotional support for me when I've just needed to rant'.</p>	<p>This participant described the support of the mindfulness and wellbeing coach as 'amazing' and felt that something like this might also help other NQTs in their first year.</p> <p>They also felt they would benefit from more general feedback on their progress and positive praise, as 'we're not always told that, it'd be nice to be told that a little bit more often'. This was in comparison to their PGCE year, where "you're used to getting feedback every single lesson, and then, all of a sudden you're in the classroom on your own and you don't get () any kind of feedback from someone else watching which is nice cos you've got that freedom, but at the same time it's like () Was that alright? and then you can start doubting".</p>
		<p>[DEPARTMENT AND TEAM CULTURES] This NQT felt as though they were part of multiple teams. "I feel very much it is the department is the team, but then I also feel like I've got a team within my house for tutor, and then we've got kind of little NQT and the NQT mentor [] we're all friends on Facebook [] there's another NQT in [a different department] as well so we support each other".</p> <p>The NQT narrated how their head of department 'teaches with her door open' so they could see right down the corridor and spot any issues arising "so, if I've timed out a few people she'll come down and speak to them if she's not teaching".</p> <p>The whole department, however, was very responsive to requests for help and were happy to share "all you've gotta do is ask someone and they'll usually find a resource for you, so one of the really experienced teachers was in the office the other day and said Oh I can't find anything for [] this last lesson today [] and then someone just popped in here, got a book out and said Aw try this one [] it was all done within ten minutes".</p> <p>[PERCEPTIONS OF OTHER STAFF & ROLES] This participant described feeling 'really lucky' to have the regular support of TAs and how some classes could be 'more challenging' if those staff were called away to do other tasks. They narrated working well as</p>				

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
NQT11	<p>[PHYSICAL LAYOUT OF SCHOOL & DEPARTMENTS] This participant described having their classroom 'right opposite the [department] workshop' and how their head of department sat 'just through the workshop on the other side', meaning that they were very physically available.</p> <p>[SHARED RESOURCES] The department had a 'really well organised resource cupboard', but their systems for online resources were not very 'logical'. "Everyone in the department admits we've not got that to a-down to a tee at the moment". However, this was mitigated by the fact that colleagues were very responsive to calls for assistance.</p> <p>[SIZE OF SCHOOL OR DEPARTMENTS] The NQT felt 'lucky to be in a big department' and felt that was a contributing factor to being able to get help</p>	<p>[WHOLE SCHOOL SYSTEMS] This participant described how the school having an 'open door' policy meant that their head of department and others could hear 'what sort of a day I'm having [] it doesn't feel like it's in a way where she's listening in on me it's just she's aware and everyone is' so that 'if ever there was a erm, a scenario where you did need instant help you could just call for it really'.</p> <p>In addition, the system run by the isolation support team, who removed disruptive students from the classroom and also facilitated restorative conversations with them later, was 'a godsend', as having a 'fully kindof managed, conversation with them at a later time' helped the teacher to resolve issues and to 'work out, what you're gonna do next lesson and how you can support them better that's amazing I think'.</p> <p>[AVAILABILITY OF MENTORS AND SENIORS] The participant described their NQT subject mentor giving them 'a lot of her time' despite being 'a very busy person obviously'. "She doesn't have to do that though it's really kind that she did, so-she's meant have an hour, every fortnight for me [] and she's very good to make sure that she ring fences that time for me".</p>	<p>[DEPARTMENT AND TEAM CULTURES] A lot support that this NQT described receiving from their department was informal, facilitated by shared lunch and break times, and sharing a workshop with colleagues who were 'ready to help and discuss', and 'anyone in the department [being] quite good to go to'.</p> <p>"Some from outside might say a cliquee department we always hang out together during breaks and lunch time [] it's quite often I just walk into the [department] room and moan about what's just happened or fret about what's about to happen and the support just comes very naturally from those around the table". Although they did also experience good formal support, such as mentoring meetings which 'forces you to reflect', they described the informal help from their department as their 'favourite type of support'. Formal observations were done in a 'very supportive way', being 'relaxed and low stakes'. It was also described as a 'very share-y department', where "if ever you go into the workshop and say I cannot find anything for [this topic] they'll say, Okay I had that problem too I created this and they'll send it straight over, so that's a nice environment to have I think, just</p>	<p>a team, and that TA support meant they could get on and teach their class. "So it's really really nice that we can kindof work together in a pair and settle students down cos we've got some very emotional students who, just coming into the lesson is a big deal [] so we're able to support them emotionally and just, have a little quiet word with them and [] calm them down when I'm trying to teach the rest of the class and then catch them back up".</p>	<p>[RECIPROCITY/HELPING OTHERS] This NQT described how they had received very good support from 'someone who was an NQT last year as well' who was 'a very strong teacher she's gonna go on to do great things' and how useful it had been to 'see exactly what she did and, Ah it's not that hard and just hearing her tidbits and ideas from- what she did from her NQT year'. This had inspired them to think about how they might support a new NQT, due to join the school the following year.</p> <p>INITIATING LEARNING EXPERIENCES or REQUESTING FEEDBACK They also described starting to independently organise times to observe teachers in other departments, after their coach had to cancel this activity, which allowed them to 'discover other teaching styles'. "I've done about two learning walks since then just with another NQT in science actually and it's raised some really like interesting discussion points just going out and doing it on kindof a fortnightly basis".</p> <p>[SEEKING ALTERNATIVE SOURCES OF SUPPORT] This teacher was not as keen on using social media such as Twitter as</p>	<p>Although the open door policy of the school had meant that observing other departments' teaching was allowed, this NQT felt it had taken a bit of a 'revelation' to realise that 'Oh why don't I just do this without her [] why do I need someone to organise this for me?'. They suggested that it might have been useful therefore if the school had 'encouraged [that] a bit more at the start' so as to normalise the practice, because 'it's quite- you have to be quite confident to walk into a classroom that you don't even know the teacher yet [] you'd feel a bit rude that's the first time you've met them, watching their lesson'.</p>

Participant	Summary and main support sources (Themes 1 & 2)	Material factors (Theme 4)	Organisational factors (Theme 5)	Sociocultural factors (Theme 6)	Agency (Theme 7)	Suggestions for improvement (Theme 8.2)
		<p>with resources. "I think that's quite typical of a big department, and when you get down to smaller departments it must be really frustrating when () there's just one of you in the department in a small school and you can't find a resource". They also reflected that although smaller departments (as experienced in previous placements) meant they developed close bonds with other teachers, 'having a big department means you've got lots of choices about who you talk to' and they had access to 'all that advice and support and pools of knowledge'.</p>	<p>[STAFFING & COMPOSITION OF TEAMS] This NQT described having an 'eclectic mix' of staff in their department, from long-serving teachers from various backgrounds, including one who had taught in primary school, through to other NQTs. They narrated how this mix contributed to their learning, through providing different perspectives and new ideas on how to teach their subject.</p>	<p>knowing you can call on other people".</p> <p>[PERCEPTIONS OF OTHER STAFF & ROLES] This participant appeared to value the presence of NQTs in their department as it meant that they were 'truly in the same position as you', contributing to a feeling of a safe space in which they could admit silly mistakes that they couldn't share with senior members of staff and 'have a moan and a groan'.</p> <p>This NQT also reflected that they might take some kinds of support 'for granted a lot of the time', including their 'amazing SEND department', the attendance officer and the isolation support team, because their work 'makes my job so, easy just because it's seamless and everything's it's done'.</p> <p>As per some previous participants, this NQT described mixed feelings about having TAs in their classroom. "TAs are brilliant and have the best ideas, but sometimes it can feel like you're working in two different directions with the group, and erm () and they're just helping them straight away or y'know there's ways of managing that but I think I'd always prefer to go generally for smaller class sizes than having a TA in a big class, that's my feel'".</p>	<p>it could 'distract you a bit' and there was 'a lot of gimmicks', but they did describe having found some 'brilliant websites' with resources and also a 'really helpful' subject-specific monthly podcast which contained 'interviews with specialists in education' based on 'years of research' and was sometimes "really practical [] and you think Oh I'll try that in the classroom tomorrow and other times it's more, Oh that's the psychology of why that happens in the classroom". They also reflected that it was important to be 'really efficient with searching for what you want' on the internet as otherwise, for instance, it could take more time to find a resource online than it would to make it from scratch.</p>	
NQT12 (survey)	Has obtained support from colleagues on behaviour management, and advice from PGCE cohort on issues such as schemes of work and lesson planning, on feels that support has always been adequate.					

9.4 Teacher information sheet and consent form



Information sheet for all participants

Version 2: 11th December 2017

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

Thank you for showing an interest in this project. Please read this information sheet carefully and ask any questions before deciding whether to take part. If you do decide to participate, thank you. A consent form is attached for your information and will be completed on the day of participation.

What is the purpose of this study?

The aim of this study is to explore the different types of support that newly-qualified secondary school teachers receive from professionals and other staff in the workplace, how this support is sought or offered, and what factors might help or hinder this.

Findings from this study will help future teachers and their educators better understand how professionals learn from each other and gain support in the workplace, and how we can improve this in the future.

What type of participants are needed?

We are inviting you, as a newly-qualified secondary school teacher, currently completing your first year of teaching in a UK school, to take part.

What will participants be asked to do?

In this study we will ask you to take part in an interview, either face-to-face or over the telephone. This will take approximately 1 to 1 ½ hours, including the time it will take to read and sign the consent forms, to show that you understand what participation involves and agree to take part. To help us define the characteristics of our sample of participants, you will also be asked to complete a short demographic questionnaire.

There will also be an opportunity to take part in a follow-up interview or audio diaries, at a later date, should you wish to contribute further, but this is optional.

During the interview, you will be encouraged to talk about any recent, specific experiences of interprofessional support you have had since starting teaching in your first year as an NQT. The interview questions will centre around experiences of interprofessional support, learning and feedback in the workplace; that is, any experiences where you have sought or been offered support, information, advice, guidance and feedback by other professionals in the workplace, which have assisted you with your professional learning, developing professional skills, negotiating everyday tasks of the job, gaining an understanding of the workplace and the role, as well as social and emotional support.

Information sheet for all participants

Version 2: 11th December 2017

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

Note: *This project involves an open-questioning technique (semi-structured narrative interviews) where the precise nature of questions asked are not determined in advance, but may depend on the way in which the interview develops. Consequently, although the Ethics Committee is aware of the general areas to be explored in the interview, the Committee has not been able to review the precise questions to be used, but has seen examples of the types of questions which may be asked.*

In the event that any line of questioning develops in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular question(s) and also that you may withdraw from the project at any stage without explanation and without any disadvantage to yourself of any kind.

Can participants change their mind and withdraw from the project?

Yes, this is a completely voluntary study. Even after you agree to participate and begin the study, you are still free to withdraw at any time, without explanation and without any disadvantage to yourself of any kind. If you choose to withdraw after participation, your data will not feature in any future publications.

What data or information will be collected and what use will be made of it?

All interviews (face-to-face or telephone interviews) will be audio-recorded. If you are not happy for your responses to be audio-recorded, then you should not take part in this study. These audio-files will then be transcribed and fully anonymised.

Only direct members of the research team (Helen Foster-Collins, and Professors Vivienne Baumfield and Karen Mattick, University of Exeter) will have access to the raw data. Results of this project may be published but any data included will be anonymous and not individually identifiable. Please note that the participating schools and any third persons talked about in the interviews will also be anonymised, both in the transcriptions and in any published reports.

Once the data have been analysed, we will send a copy of the report to everyone who has participated. You will be given an opportunity to comment on these results before we submit them for publication. The results of analysis and selected quotes from the data may be published in various formats, such as journals, magazines, conference papers, and so on, which relate to professional education, teaching, workplace learning and research, and may also be used for educational purposes.

The raw data collected and anonymised transcriptions will be stored securely in such a way that only those mentioned above will be able to gain access to it. The raw data will be destroyed 7 years after the study has been published according to research governance guidelines.

Information sheet for all participants

Version 2: 11th December 2017

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

The Economic and Social Research Council, who are funding this study, request that anonymised data be available for data re-sharing, so that future researchers may access the data for similar research studies and therefore the anonymised transcripts will be made available for this purpose and stored within a research database. However, if you are not happy with this further use of your data, then you may opt-out on the consent form by circling 'No'.

Are there any advantages or disadvantages to participating in the study?

We hope that you will benefit from having the opportunity to discuss your experiences. However, if you have any concerns or feel upset at any point during the interview, you can discuss this with the researcher or ask for the interview to be stopped at any time.

We would also like to contact you in the future, to offer you the opportunity to attend a cross-professional research event at the University of Exeter, alongside junior doctors, to feed back a summary of the study results, and to provide a forum for cross-professional discussions.

Confidentiality

The information which you provide will be kept strictly confidential and no personal data will be discussed with persons outside of the research project. Whilst we will be reporting the general findings of the study within publications, personal confidentiality will be maintained. However, in rare cases, if it was felt that a participant was at significant risk of harm, then an exception may be made to this promise of confidentiality, in accordance with UK law.

All research data, including audio-recordings and transcribed interviews, will be stored securely,

A participant code will be used to identify each interview, rather than a name, so as to anonymise the data. Any published works that use your data will also be free of identifying information, so that it cannot be linked back to individual participants or their places of employment.

Personal data, such as consent forms, will be locked in a secure cabinet and kept for 7 years, at which time this data will be securely disposed of.

Data Protection Notice: The information you provide to the University of Exeter will be used for research purposes and your personal data will be processed in accordance with current data protection legislation and the University's notification lodged at the Information Commissioner's Office. Your personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. Any questions or complaints regarding this research or your data should be addressed to: Vivienne Baumfield and Karen Mattick, University of Exeter St Luke's Campus, Heavitree Road, Exeter, EX1 2LU.

Do you have any questions that you would like to ask about this study?

You may keep a copy of this information sheet to take away with you.



Consent form for all participants

Version 2: 11th December 2017

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

I have read the Information Sheet (Version 2, 11th December 2017) concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I understand that:

- | | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1. | My participation in the project is entirely voluntary. | Y/N |
| 2. | I am free to withdraw from the project at any time without explanation and without any disadvantage. | Y/N |
| 3. | All interviews will be audio-recorded. | Y/N |
| 4. | Any raw data on which the results of the project depend will be retained in secure storage. Audiotapes will be kept in accordance with research governance policies and destroyed 7 years after the study has been published. | Y/N |
| 5. | The project involves an open-questioning technique and that I have the right to decline to answer any particular question(s). | Y/N |
| 6. | My participation should not lead to any significant harm or discomfort, or any benefit. | Y/N |
| 7. | The results of the project may be published and used for educational purposes but my anonymity and that of my workplace will be preserved. | Y/N |
| 8. | The anonymized data produced may be stored in an Economic and Social Research Council database and used in the future by other researchers, subject to suitable ethical approval being given. | Y/N |
| 9. | I am happy to be contacted in the future regarding the opportunity to attend a cross-professional research event, and to be invited to take part in an optional follow-up interview or audio-diary component of this research. | Y/N |
| 10. | I agree to take part in this study. | Y/N |

Name of Participant	Date	Signature
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Researcher	Date	Signature
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9.5 Interview schedule for teacher data collection



Interview Schedule

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

Intro

Thank you very much for coming today. This should take between about 1 and ½ hours, but please say if you'd like to stop at any time.

Did you get a chance to read through the information sheet that I sent out to you?

And have you got any questions?

Information sheets

Great, so I'm going to quickly go over some of the main points from that sheet

- Data collected today will be kept confidential, stored securely and won't be discussed with anyone from outside of the university
- We will keep personal and contact details separately from the data,
- The data will be anonymised, when transcribed, so if it is used in publication it shouldn't be traceable back to yourself (we do ask that you try not to mention staff or children by name, but if that happens accidentally, don't worry, those will be removed from the transcript when I turn it into a text document)
- The only reason that we might break confidentiality was if we believed that someone was at risk of serious harm, in accordance with UK law – but that's very unlikely

- You are still free to withdraw from the study at any time, without explanation and without any disadvantage to yourself,
- And even if you have already taken part in the study we can make sure that none of your data will be used in future publications.
- If you do decide that you'd like to withdraw, or if you have any questions that you think of later on, or you'd like to make a complaint then you can contact us using the details at the bottom of the information sheet.

Consent

Brilliant, so we're just going to go through the consent form now, and if you could read each statement on the form and put your initials next to each one if you agree with it, but please ask me if you're not sure about anything.

Then if you could put your name, date and signature at the bottom if you feel happy to take part.

Thank you very much.

Demographic form

Also, if you don't mind, if you could quickly fill out this demographic questionnaire - that just helps us to understand a little bit more about who is taking part, who our participants are.

So, if you're happy to start then I'll just press record on my recorder.

Interview Schedule

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

And I'm just going to start by recapping the aims of the study

- We're interested in the kinds of support that newly-qualified teachers receive from other people while they are at work. So, that might be staff within the school, professionals who come into the school, and so on.
- And we're interested in hearing about any experiences that you've had since you started your first year of teaching, where you have received support in the workplace.
- Or, you may have felt that you wanted support with something and there was a reason why you weren't able to obtain that. Maybe you approached someone, or wished that you could, but for some reason you weren't able to do that, or it could have been better in some way. So, we're happy to hear both positive and negative stories.
- Narrative study – where possible, interested in specific stories, in as much detail as you can remember, rather than 'this is what generally happens', but obviously that's not always possible..

Trying to understand:

- Who is giving support
- What they are doing or providing for you
- What might help or get in the way of support for new teachers, and are there ways in which we could improve that?

Does that sound okay?

Interview Schedule

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

Questions

Who are the people who support you at work? And what kinds of things do they do? (*could perhaps use post-notes to write all of these people down to refer back to?*)

And, are those people all from within the school or do you ever receive support from professionals or other people visiting the school?

And, just to understand what your working situation is like currently, would you say that you are isolated when you're working in your classroom, or is support readily available when you're teaching?

And are there any formal support systems at place in your school? Or would you say that they are mostly informal..or a mix of both?

If you needed support during class or outside of the classroom, how would you go about obtaining that? (possible prompts: in class: telephone, send child, wait till after class; after class; approach specific person, etc.)

Can you recall a specific time when you sought support from somebody at work?

Could you tell me about a time when another person offered or gave you support in the workplace?

Has there been a time when you felt like you would have liked help with something in the workplace and it was difficult to obtain, or you weren't sure where to go, something like that?

Do you feel as though you are a part of a wider team? Who would you include in that team?

General prompts

Can you tell us more about that?

What happened after that?

Was that helpful to you?

Why do you think that was?

Quadrant of types of support ->

Social and emotional / reassurance, confidence, etc.

Practical support (e.g. fetching/setting-up equipment, creation/sharing of resources)

Information & advice / Feedback - learning and developing professional skills (CPD), such as how to teach / classroom management, progress in role, negotiating everyday tasks of the job, gaining an understanding of the workplace and the role (identity).

Interview Schedule

Interprofessional learning, support and feedback, in newly-qualified secondary school teachers

Additional prompts – if time at end and only some types covered

- Can you recall a time when someone gave you information, or maybe provided advice or feedback on your work?
- Was there a time when you needed help with a difficult situation at work, or where you were not sure what to do?
- Has anyone helped you understand more about the workplace and your role in the school?
- Has there been an occasion when someone provided emotional or social support in the workplace?
- Was there a time when support has helped you with your professional learning, or developing skills for your job?
- They may be other types of support that we haven't thought about.

Possible sources of support

Professionals:

SEN teachers, educational psychologists, speech therapists, social workers, nurses, doctors, occupational therapists, school counsellors, police

Allied:

Teaching assistants, admin staff, technicians,

But you may think of people that I haven't got written down here - and that's part of the study is finding out who all these people might be.

Wrapping up

Thank teacher for taking part - appreciate

Remind that will be in contact again to send summary of results / invite to event

In meantime, can also contact at any time with questions or issues

Ask whether might be interested in taking part in follow-up part of study

-> aware that in talking about experiences may be point of reflection during practice

-> 6 short diaries (5 minutes), over 3 months (every two weeks), send email reminders

-> then a further (shorter) interview to reflect on those diaries.

9.6 Survey design for teacher data collection

6/9/2019

Survey Design - SmartSurvey Control Panel

The screenshot displays the SmartSurvey Control Panel interface. At the top, there is a navigation bar with 'SmartSurvey' logo, 'Dashboard', 'My Surveys', 'Libraries', 'Support', 'Account', and an 'Upgrade' button. Below this, a banner for the current survey 'Workplace support for secondary-school NQTs' is visible, with 'Design', 'Collect', and 'Results' buttons. The main design area shows a survey titled 'Workplace support for secondary-school NQTs' with 'Preview Survey' and 'Send Survey' buttons. The survey content is organized into sections, with the first section titled '1. Information sheet'. This section contains three paragraphs of introductory text, a 'Next' radio button, and a 'What type of participants are needed?' question with a list of criteria. The interface includes various editing tools like 'Add Question Here', 'Split Page Here', 'Required', and 'Move' for each question. A right-hand sidebar for each question provides options such as 'Edit Question', 'Copy Question', 'Move Question', 'Skip Logic', and 'Delete Question'. The URL 'https://app.smartsurvey.co.uk/survey/editor/id/471171' is shown at the bottom left, and '1/6' is at the bottom right.

cloud storage, a password-protected laptop and encrypted data stick.

• We ask that stories shared in this survey do not include names, locations or any information which might be used to identify individual teachers, colleagues, students or schools. However, any published works that use your data will also be checked to ensure that they are free of identifying information.

• We do not anticipate that there will be any significant harms resulting from this study, and hope that you will benefit from having the opportunity to talk about your experiences. However, if you are feeling distress due to difficulties with stress in the workplace, please seek appropriate support. For example, www.educationsupportpartnership.org.uk provide a free helpline 08000 562 561

• The results of analysis and selected quotes from the data may be published in various formats, such as journals, magazines, conference papers, and so on, which relate to professional education, teaching, workplace learning and research, and may also be used for educational purposes.

• This is a completely voluntary study. Even after you agree to participate and begin the survey, you are still free to withdraw at any time, without explanation and without any disadvantage to yourself of any kind. If you choose to withdraw after participation, please write to us and, so long as we can identify your data, we can ensure that your data will not feature in any future publications. The raw data will be destroyed 7 years after the study has been published according to research governance guidelines.

• Data Protection Notice: The information you provide to the University of Exeter will be used for research purposes and your personal data will be processed in accordance with current data protection legislation and the University's notification lodged at the Information Commissioner's Office. Your personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. Any questions or complaints regarding this research or your data may also be addressed to: Vivienne Baumfield and Karen Mattick, University of Exeter St Luke's Campus, Heavitree Road, Exeter, EX1 2LU.

Please tick 'Next' to continue

Next

Add Question Here

Skip Logic

Delete Question

+ Insert Page Here

Remove Page Break

Show this page only

2. Consent Form

Page Options: Edit Page Logic Copy Move Delete

Please read each of the following statements carefully and tick the boxes as appropriate.

Add Question Here

Required Move

ID: 7333762

Edit Question

Copy Question

Move Question

Skip Logic

Delete Question

* I have read the information sheet above concerning this project and understand what it is about.

Please tick **Agree** to show that you understand and agree with the following statements (these are required to take part in the study)

Agree

1. My participation in the project is entirely voluntary.

2. I am free to withdraw from the project at any time without explanation and without any disadvantage, using the contact details provided in the information statement.

3. Any raw data on which the results of the project depend will be retained in secure storage, in accordance with research governance policies and destroyed 7 years after the study has been published.

4. I have the right to decline to answer any particular question(s).

5. My participation should not lead to any significant harm or discomfort, or any benefit.

6. The results of the project may be published and used for educational purposes but my anonymity and that of my workplace will be preserved.

7. I agree to take part in this study.

Add Question Here

Split Page Here

Required Move

ID: 7333881

Edit Question

Copy Question

Move Question

* The following responses are optional. Please tick agree or disagree as appropriate.

Agree Disagree

Agree Disagree

8. The anonymized data produced may be stored in an Economic and Social Research Council database and used in the future by other researchers, subject to suitable ethical approval being given.

9. I am happy to be contacted in the future, so that I may receive a summary of results, and to have the opportunity to be invited to attend a cross-professional research event presenting the findings. (Please provide your email at the end of the survey if you would like to be contacted for these purposes).

[Add Question Here](#)

[➤](#) Skip Logic

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3. Stories of workplace support Page Options: [Edit Page](#) [Logic](#) [Copy](#) [Move](#) [Delete](#)

[Add Question Here](#) Required Move ↓

*** We are interested in hearing about any experiences you had where you received or sought support from other professionals and staff, in the workplace or beyond – this might include:**

- seeking or receiving information, advice, guidance and feedback,
- assistance with your professional learning or developing professional skills,
- negotiating everyday tasks of the job, gaining understanding of the workplace and your role
- social and emotional support
- any other types of support you may think of.

We are also interested in stories about when you didn't feel supported in the workplace, what barriers might stop you from obtaining support, and any ideas on ways to improve this.

Please tick 'Next' to continue

Next ○

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Q1 Required Move ↑ ↓

1. Can you recall a time recently (or in this teaching year) when you sought support from another staff member or professional at work, or they offered support to you?
Please describe in as much detail as you would like (not mentioning any names or places)

[Add Question Here](#)
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Q2 Required Move ↑ ↓

2. Can you recall a time recently (or in this teaching year) when you needed support in the workplace, but were unable to obtain it for some reason, or your experience of obtaining support could have been improved in some way?
Please describe in as much detail as you would like (not mentioning any names or places)

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Q3

Add Question Here Split Page Here

Required Move

ID: 7333201

3. Do you ever obtain support with any workplace issues outside of your school, and if so from who/where?
Please describe in as much detail as you would like (not mentioning any names or places)

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4. Demographic information Page Options: Edit Page Logic Copy Move Delete

Responses to these questions are optional, but they help us understand who is taking part and a little about their background.

Q4

Add Question Here

Required Move

ID: 7334642

4. Were you employed before applying for teacher training - YES/NO?
(If yes, please state your previous occupation)

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Q5

Add Question Here

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ID: 7334643

5. Have you carried out any substantial caring roles previous to applying for teacher training - YES/NO?
(If yes, please state the nature of this)

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<p>Q6</p> <p>6. Previous to teacher training, what was the highest level of education that you attained? Please state the nature of this (e.g. Bachelor's degree in Biology)</p> <input type="text"/>	<input type="checkbox"/> Required Move ↑ ↓	<p>ID: 7334647</p> <ul style="list-style-type: none"> Edit Question Copy Question Move Question Skip Logic Delete Question
<p>Add Question Here Split Page Here</p>		
<p>Q7</p> <p>7. Which secondary-school subject/s do you teach in your current school?</p> <input type="text"/>	<input type="checkbox"/> Required Move ↑ ↓	<p>ID: 7334653</p> <ul style="list-style-type: none"> Edit Question Copy Question Move Question Skip Logic Delete Question
<p>Add Question Here Split Page Here</p>		
<p>Q8</p> <p>8. Additional demographics</p> <p>Year of birth <input type="text"/></p> <p>Gender <input type="text"/></p> <p>Ethnicity <input type="text"/></p> <p>Location (e.g. South, Midlands, North East, North West, South West, London) <input type="text"/></p>	<input type="checkbox"/> Required Move ↑ ↓	<p>ID: 7334733</p> <ul style="list-style-type: none"> Edit Question Copy Question Move Question Skip Logic Delete Question
<p>Add Question Here Split Page Here</p>		
<p>Q9</p> <p>9. Thank you so much for your participation! You may write your email here (optional), if you would like to receive a summary of results after analysis and/or be invited to a cross-professional event at the University of Exeter.</p> <input type="text"/>	<input type="checkbox"/> Required Move ↑	<p>ID: 7334737</p> <ul style="list-style-type: none"> Edit Question Copy Question Move Question Skip Logic Delete Question

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5. Thank You Page [Modify Message Settings](#)

You have completed this survey!

Thank you for taking the time to answer this survey.

[Preview Survey](#) [Send Survey →](#)

Glossary

acute pain team Specialist doctors who manage pain resulting from surgery, or persistent pain relating to trauma or disease⁶⁸³. 433

administrators In hospitals and general practices, teams of administrative staff provide business support to clinical and non-clinical staff, and include clerks, health records staff, receptionists, medical secretaries, typists and telephone operators⁶⁸⁴. Similarly, in schools a wide range of administration staff may be present to support teaching staff and school leaders including personal assistants, office managers, finance officers, secretaries, attendance officers, examinations officers, data management staff and general administration staff⁴³³. 205, 236, 383, 430

allied health-care professionals (HCPs) In some narratives, F1s described obtaining support, advice and feedback from wider teams of allied professionals including midwives, nutritionist,

physiotherapists, occupational therapists and social workers. Other allied health professionals who may typically work in hospitals, as listed by the Health and Care Professions Council⁶⁸⁵, were noted in the framework before coding but not subsequently mentioned by participants in the medical data. These included: arts therapists, biomedical scientists, chiropodists / podiatrists, clinical scientists, hearing aid dispensers, operating department practitioners, orthoptists, paramedics, practitioner psychologists, prosthetists and orthotists, and speech and language therapists. 205

cardiology Specialists in the cardiovascular system, who assess, diagnose and treat adult patients with diseases and defects of the heart and blood vessels, such as angina, arrhythmia, heart attack and high blood pressure⁶⁸⁶. 433

clinical supervisor Supervisors allocated to postgraduate medical trainees to supervise their clinical learning and performance during a specific 4-month placement in their foundation programme³⁷. 42, 112, 203, 433

consultant Consultants are the most senior grade of doctor working in a hospital; they are physicians or surgeons who have completed specialist training for a minimum of six years in a particular area of medicine, and who can provide expert

advice in this field. They manage multidisciplinary medical teams, are responsible for patient safety, and often hold responsibilities regarding clinical service development and management, medical research, and the supervision and teaching of other doctors^{687,688}. During analysis of the medical data, only those staff who F1s directly referred to as 'consultants' were coded as such, as they were therefore likely to have been consultants in-charge on that ward, rather than those in other specialities (for example, microbiologists are often consultants but tend to work across several wards), or those acting as their clinical or educational supervisors. 202, 203, 330, 334

critical care team (Also known as 'outreach' or medical emergency teams). These rapid response teams are trained to recognise and respond to changes in condition for acutely ill patients, providing on-ward management and stabilisation, and making decisions regarding escalation of care and transfer to HDU or ICU. Critical care services or teams (CCOS/CCOT) are nurse-led support services, whereas medical emergency teams (MET) consist of both specially trained medical doctors and nurses^{689,690,691}. 329, 433

dietician Like nutritionists, dieticians work to support health teams

in hospitals and outpatient clinics, with advice on diet and diet-related medical conditions. Dieticians are qualified to degree standard and registered with the Health Professions Council.⁶⁹². 202, 205

dinner ladies also known as lunchtime supervisors. Staff who serve food to students, supervise play and manage behaviour within the dining room and in outside play areas⁶⁹³. 236

educational psychologist Professionals who support children with **special educational needs (SEN)** such as learning difficulties, social and emotional problems, disabilities and developmental disorders, by conducting observations and assessments, providing advice, and suggesting possible strategies^{411,694}. 117, 237

educational supervisor Supervisors allocated to postgraduate medical trainees to supervise their learning throughout the two-year foundation period³⁷. 42, 112, 203, 433

ExPLAIN network Exeter Professional Learning and Inquiry Network. A collaborative network open to those interested in exploring debates and dilemmas in the current research, policy and practice of professional learning⁶⁹⁵. 178

formal learning Learning which is structured, with pre-specified

activities and outcomes, delivered by a designated teacher/s and endorsed by the employer. [22, 85](#)

foundation training The two year in-work training programme which new UK medical graduates undertake after medical school under provisional registration. Typically, this consists of six clinical placements lasting four months each, at a number of different hospitals, clinics, and health centres, to provide them with practical clinical experience of a number of medical specialities^{30,31,32}. These doctors are known in the first year of this training as foundation year one trainees F1s and in the second year as F2s. [3, 30](#)

general practitioners (GPs) Community-based doctors who provide general medical treatment for minor or ongoing illnesses and may make referrals to hospital specialist and departments⁶⁹⁶. [205](#)

generalised incident narrative One (or more) participants recounting an event that frequently occurs. Rather than describing a specific situation, they provide a generalised story about what typically occurs – e.g. ‘it happens all the time...’¹⁵⁴. [176, 200](#)

haematology Specialists in treating disorders of the blood and blood-forming organs (bone marrow, lymph system), such as

anaemia and leukaemia, who take care of outpatients and inpatients, run diagnostic clinics, and perform treatments such as chemotherapy and blood transfusion⁶⁹⁷. 433

healthcare assistants (HCAs) In hospitals, HCAs work under the guidance of other qualified healthcare professionals, such as nurses, to provide basic patient care such as washing and dressing patients, making beds, monitoring and measuring patients' condition (e.g. taking pulse or temperature readings), making beds, assisting with toileting, serving food and feeding, and helping to move patients⁶⁹⁸. 117, 202, 205, 430

healthcare support staff In some narratives, F1s described obtaining support from healthcare support staff such as **healthcare assistants (HCAs)**, **ward assistants**, **hospital porters** and **administrators**. 205

higher level teaching assistant (HTLAs) are teaching assistants who have undertaken further formal training⁶⁹⁹. This new role was introduced in 2003 as part of the Labour government's Workforce Agreement, designed to reduce teachers' workloads⁷⁰⁰. It was intended that HTLAs take responsibility for 'planning, preparing and delivering learning activities for individuals [or] groups, or short term for whole classes', but it has been noted that they often teach whole classes on a more

regular basis and undertake work more usually associated with trained teachers⁷⁰¹. 63, 236

hospital porter Hospital porters are responsible for moving people and objects around the hospital, such as: patients on trolleys or in wheelchairs, medical equipment, blood samples, waste, food, and clean or dirty linen⁷⁰². 202, 205, 430

house officer House officer is an historic term used in previous medical hierarchies. In this data, some F1s still employed this term to refer to other F1s or F2s. 203

inclusive education This has been described as ‘the restructuring of the education system in order to provide equal educational opportunities for all children, irrespective of individual differences arising from ability, ethnicity, culture and religion’⁷⁰³. 342

infectious diseases This department investigates, diagnoses and treats infections caused by micro-organisms (bacteria, viruses, protozoa and fungi), including diseases such as HIV, pneumonia, hepatitis B and C, and MRSA⁷⁰⁴. 433

informal learning Learning which is unstructured and (relatively) unplanned, which relies upon an individual learner or teacher responding to the needs or opportunities of the moment. 22,

intensive therapy or high dependency units Intensive therapy units (ITUs), sometimes also known as intensive care units (ICUs) or critical care units (CCUs), are specialist wards which provide treatment and monitoring for seriously ill patients who require intensive treatment and close monitoring, due to conditions such as road accidents, heart attacks and strokes, serious infections such as blood poisoning, or when recovering after major surgery. High Dependency Units (HDUs) are wards for those who require more intensive observation, treatment and nursing care than a general ward but slightly less than they would receive in intensive care^{705,706}. 433

junior doctor A qualified doctor, practising at any stage between graduation and completion of specialist postgraduate training, who works under the supervision of a senior doctor. 55, 59, 61, 62, 68, 70, 71, 77, 331, 336, 374

keyworker A named person who coordinates inter-agency support services for a child such as health, social services, education and voluntary services. This person is sometimes a teacher within the school that the child attends⁷⁰⁷. 237

medical departments F1s sometimes talked about contacting other specialist departments and teams, for example, to seek

advice and support with decision-making. These departments included the acute pain team, cardiology, critical care team, haematology, infectious diseases, intensive therapy or high dependency units, obstetricians, orthopaedics, palliative care, renal physicians, respiratory departments, rheumatology and surgery. 204

mentor In schools, NQTs will usually be allocated both an NQT subject mentor (frequently, a teacher from within their specialist subject department or faculty) and an NQT advisor, responsible for all NQTs in a school or group of schools (sometimes also referred to as a NQT coordinator or programme lead). Some NQTs in these data also reported having coaches, who worked within or came from outside the school to provide support. Newly-qualified doctors usually have clinical supervisors and educational supervisors allocated to provide formal support, rather than mentors, and although some mentoring schemes for doctors exist in the UK⁷⁰⁸ no mentors were mentioned by F1s in these data. 236, 340, 341, 347, 348, 350, 352, 355, 359, 387

mentoring A one-to-one sustained, ongoing relationship, between a more experienced expert and a novice, which aims to support and promote the novice's professional development

and personal wellbeing³⁶³. 111

microbiologist Microbiologists are responsible for identifying and classifying bacteria, viruses, fungi and parasites, for the purposes of infection diagnosis, treatment and control. Microbiologists are usually trained doctors and have often reached consultant level but tend to work in laboratories and pathology departments within the hospital, visiting and supporting patients across a number of different wards^{709,710}. 202, 204, 327, 338

middle leaders are staff in mid-level leadership roles, who may or may not also have teaching responsibilities, including heads of departments (also referred to as TLLs or teaching and learning leaders in these data), heads of faculty, heads and assistant heads of year, heads of house or pastoral care, and safe-guarding coordinators⁷¹¹. 236

midwives Hospital midwives are usually based in a hospital obstetric unit, a birth centre, or midwife-led unit, and work in antenatal clinics, labour wards, and postnatal wards, to provide advice, care and support for women during pregnancy, labour, and after birth^{712,713}. 202, 205, 332, 425

newly qualified teacher (NQTs) are teachers who have completed an initial teacher training (ITT) programme accredited by the

Department for Education and are entering their first qualified role. 3, 44

NQT+1 This term was used to refer to peer teachers who had completed their NQT year in the previous academic year. 178, 236, 241, 247, 341, 356, 382, 387, 438

nurse Nurses carry out patient care and are generally responsible for a group of patients on a ward, allowing them to provide 'continuity of care'. However, some nurses are also medically trained to do tasks such as cannulation, prescribing, ordering blood tests, etc, or may have carried out advanced or specialist training to become nurse practitioners, consultant nurses or clinical nurse specialists⁷¹⁴. 202, 204, 327, 329, 331, 338, 383, 387

nutritionist Nutritionists and dieticians both work with other members of health teams in hospitals and outpatient clinics, to provide advice on diet and nutrition for patients, particularly regarding patient wellbeing during hospital stays and for the treatment of medical conditions such as diabetes, obesity, heart disease, malnutrition, gastrointestinal disorders and eating disorders. They are also a source of advice on tube feeding. The title 'nutritionist' is unprotected, although some have completed degree level courses in nutrition and are

registered with a professional body⁶⁹². 202, 205, 425

obstetricians Doctors who specialise in the areas of pregnancy, childbirth and reproduction, and care for women before, during and after birth⁷¹⁵. 433

occupational therapists (OTs) Specialists who work with people with physical disabilities, learning disabilities and health-related difficulties which impede achievement of everyday tasks. OTs create individualised plans which advise on alternative ways of carrying out tasks, recommend changes to home or educational environments, as well as specialist equipment. In hospitals, this may involve working with patients prior to discharge to ensure that they will be able to complete activities such as washing and dressing, preparing food and eating, work and travel. Working in collaboration with schools, they also support children with complex **special educational needs (SEN)**⁷¹⁶. 117, 202, 205, 332, 426

on-call F1s narrated contacting the 'on-call' team for support during out-of-hours shifts. Registrars predominantly provide this type of support, but on-call teams may also include SHOs, microbiologists, pharmacists and other consultants. This label was used to denote instances where the nature of the on-call staff was not specified in narratives. 204

on-the-spot learning Learning which occurs in response to immediate events on recognition of a learning opportunity³. This has also been described as 'emergent learning' as, although these are deliberate attempts to take advantage of current situations to increase knowledge and skills, unlike formal learning, the learning strategies are not pre-planned but emerge from current events and are adaptive in nature⁴. Recognising opportunities for learning is something which may be done by learners themselves, or by others in their environment. 23, 87

orthopaedics Doctors in this specialism diagnose and perform surgical procedures for injuries and diseases of the musculoskeletal system, caused by trauma, congenital and degenerative diseases, infections and tumours⁷¹⁵. 433

palliative care These departments specialise in end-of-life care for patients who have incurable illnesses at an advanced stage, such as cancer, dementia or motor neurone disease, who have suffered from life-threatening acute conditions such as accident or stroke, or who are otherwise frail, suffering from multiple conditions or expected to die within 12 months. These teams provide treatment to manage pain and other distressing symptoms, and can consist of specialist palliative medicine

consultants, nurses, occupational therapists and physiotherapists⁷¹⁷. 433

peers In the coding of medical data, this referred to colleagues of approximately the same level of seniority as F1s, in their first or second year of foundation training, who may or may not be working on the same ward as themselves. F2s were also occasionally referred to in the narratives as house officers (HO) which is an historic term for that grade. In the teacher data, this term was used to refer to fellow NQTs and NQT+1s. 203, 332, 339, 344, 345, 355–357, 360

personalised incident narrative One (or more) participants recounting a specific event that they have personally experienced¹⁵⁴. 176, 200

pharmacist Pharmacists are responsible for the prescription of drugs and medicines and may give advice and support regarding correct prescribing, dosage, the form and use of medications, interactions between different drugs, side effects and monitoring of outcomes⁷¹⁸. Like microbiologists, they are also usually trained doctors of various grades, up to consultant level. 202, 204, 327, 332, 338, 387

physiotherapist Qualified practitioners who specialise in trying to restore or improve movement in patients who have mobility

issues due to injury, illness or disability, through manual therapy, tailored exercise programmes and the provision of advice⁷¹⁹. 202, 205, 426

professional A member of one of the professions, relating to work that requires special training or education⁷²⁰. 93

registrar Registrars are in the process of completing speciality training to become consultants. They act as assistants to the consultants and are typically responsible for reviewing patients, as well as providing out of hours and weekend medical support^{721,688}. They may sometimes be referred to as STs (speciality trainees) for example, ST3 or ST8, with the number referring to which year of specialist training they are currently in. 202, 203

renal physicians Nephrologists (doctors in renal medicine) diagnose, treat and manage diseases of the kidneys, including kidney infections, kidney stones, tumours, genetic disorders, auto-immune disorders, diabetes, high blood pressure, and acute kidney injury or failure⁷²². 433

respiratory department Doctors who diagnose and treat conditions affecting the respiratory system (nose, throat, larynx, windpipe, lungs and diaphragm). They work in general outpatient respiratory clinics, specialist clinics, and in

collaboration with the intensive care unit, to support patients with conditions such as emphysema and chronic bronchitis, lung cancer, tuberculosis, cystic fibrosis, asthma, breathlessness, chronic coughs and sleep apnoea⁷²³. 433

rheumatology Doctors who specialise in treating disorders of the bones, joints, muscles and soft tissues, such as arthritis, osteoporosis, back pain, gout and sports injuries⁷²⁴. 433

senior house officer (SHO) Senior house officer is an historic term used in previous medical hierarchies. In this data, some F1s still employed this term, and it was not always clear whether they were referring to F2s (second year foundation trainees) or to CT1s and CT2s (trainees who have completed foundation training and are subsequently undertaking two years of core training). 203

senior leadership team (SLT) Senior members of staff involved in running the school, including head teachers or principals, assistant or deputy head teachers or principals, CEOs and deputy CEOs, and line managers. This may sometimes include **SENCOs**. Also referred to as the senior management team (SMT). 236, 341

seniors Trainee doctors often made reference in their narratives to support received from 'seniors', in which case it was not

always possible to identify from the narratives whether this referred to consultants, registrars, SHOs or other senior staff.

204, 330, 332, 335, 339

social and emotional support Interpersonal working relationships which 'promote the wellbeing or coping abilities of the recipient'^{7(p. 75)} and may encompass both behavioural and emotional interactions, as well as perceptions regarding the 'adequacy or availability of different types of support'^{8(p. 16)}.

23, 115

social worker In medicine, social workers may work collaboratively with health professionals to support vulnerable individuals such as people in care, those with mental and physical disabilities, or those with alcohol or drug abuse problems. They advocate for patients, make referrals to other agencies, and support transitions such as leaving hospital⁷²⁵. In education, social workers work with interdisciplinary teams, including collaborations with schools, to support vulnerable young people, targeting psycho-social factors which might affect educational attainment^{726,415}. 117, 202, 205, 332, 426

special educational needs (SEN) Children have special educational needs if they have a learning difficulty which calls for special educational provision to be made for them.

Children have a learning difficulty if they have a significantly greater difficulty in learning than the majority of children of the same age, or have a disability which prevents or hinders them from making use of educational facilities⁷²⁷. SEN may also include complex social, emotional, psychological and behavioural difficulties, and may be referred to as 'additional needs' or 'individual needs'⁷²⁸(p. 9). 236

special educational needs coordinator SENCo The specialist teacher in a school who is designated to coordinate educational provision for children with special educational needs (SEN)⁷²⁹, as per the Special Educational Needs Code of Practice⁷³⁰. 237

speech and language therapist Professionals who support children with speech and language difficulties in collaboration with schools⁴¹³. 117, 237

STEM STEM stands for science, technology, engineering and mathematics, but the Department for Education definition of STEM subjects in secondary schools is currently limited to biology, chemistry, computing, mathematics (including statistics), further mathematics and physics⁷³¹. 70

supervised learning event (SLE) A formal observation of a foundation trainee's procedural clinical skills³⁸. 41, 42, 82,

175, 190

surgery Surgery is a wide-ranging specialty with many sub-specialties. Conditions which require surgical procedures include appendicitis, hernias, gallstones, bowel tumours and organ transplants⁷³². 433

teaching assistant (TAs, also referred to variously as teacher aides, classroom assistants, learning support assistants, special needs assistants or non-teaching assistants^{388,428}, usually work within classrooms to support individual children who been given statements of special educational need, but may also work to support the class as a whole, are utilised by schools to work across multiple classrooms, lead small groups or perform administrative tasks for the teacher⁴²⁹. 118, 340, 350, 359, 383

ward assistant Ward assistants help allied health professionals and staff with non-medical tasks such as the cleaning of wards, and the transport and serving of meals. 202, 205, 430

workplace learning Learning which derives its purpose from the context of employment..[which] goes beyond training, which is narrowly focused on the immediate task and restricted to business needs, but involves “learning in, through and for the workplace”^{9,11}. 24, 81

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. 24, 80

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