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**A study to identify the factors that either
facilitate or hinder medical specialty trainees in
their Annual Review of Competence
Progression (ARCP), with a focus on adverse
ARCP outcomes**

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2017

Abstract

Background: Specialty training is a stressful period in medical training.

Trainees must work in a busy clinical environment and meet their training competencies. Trainees must complete an annual review to ensure that they are competent to pass to the next level of training. This thesis is interested in why some trainees (5%) have difficulties progressing through their training.

Factors which impact on trainees' performance are complex and multiple in nature. It may start with their personality or country of graduation (or both).

Secondly, it may be that trainees have not received adequate feedback and this has contributed to their underperformance or, thirdly, the service demands and work intensity impact on a trainee's ability to progress. An in-depth understanding of the factors and how they interact with each other and impact on trainees underperforming is needed.

Aim: This thesis set out to identify the factors that either facilitate or hinder medical specialty trainees in their Annual Review of Competence Progression (ARCP), with a focus on adverse ARCP outcomes.

Methods: Research was conducted across three phases. Phase One was a retrospective observational study investigating which trainees had difficulty progressing through their ARCPs (over a five year period). Phase Two was a systematic literature review to identify indicators that are associated with doctors who experience difficulties with progressing during their specialty training. Phase Three involved a constructivist Grounded Theory study to provide further understanding about what helped or hindered ARCP outcomes.

Results: Findings from Phase One identified that trainees who were older, male or had qualified overseas were found to be at a greater risk of receiving adverse ARCP outcomes. Phase Two identified seven indicators from the literature, these were: overseas graduates and ethnicity, age, gender, personality traits, financial issues, trainee background and issues related to the organisation. Phase Three involved semi-structured interviews with trainees (n=21) and trainers (n=57). Interviews identified risk factors and enablers to progressing through specialty training. The three core categories identified were: individual, training environment and society. Associated risks and enablers were also identified under each of these three core categories. The overall core category, which emerged from the data and explained why trainees had difficulties progressing was focused on a conflict of values. A 'values model' was developed to explain why trainees fail their ARCPs.

Discussion: The synthesis of all Phases of this thesis, informed the development of a 'circuit' model that identified the barriers and enablers to trainee progression (Phase Four). In addition, a screening tool was devised to help Trusts with the early identification of trainees most at risk of adverse ARCP outcomes, and ensure enabling factors are made available to support trainees.

Conclusion: This thesis has identified why trainees fail ARCPs (conflict in values), the barriers and enablers to progression and has developed a tool to support the early identification of trainees most at risk.

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List of abbreviations

ARCP	Annual Review of Competence Progression
BEME	Best Evidence Medical Education
BMA	British Medical Association
CPD	Continuing Professional Development
CSA	Clinical Skills Assessment
DH	Department of Health
EWTD	European Working Time Directive
EU	European Union
HEE	Health Education England
IMG	International Medical Graduate
LETB	Local UK Education and Training Board
GMC	General Medical Council
GMP	Good Medical Practice
GP	General Practitioners
MMC	Modernising Medical Careers
MRCGP	Membership of Royal College of General Practitioners
NCAS	National Clinical Assessment Service
NCAA	National Clinical Assessment Authority

NPSA	National Patient Safety Association
NHS	National Health Service
PLAB	Professional Linguistic Assessment Board
PTSD	Post Traumatic Stress Disorder
RITA	Record of In-Training Assessment

Statement of Copyright

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Acknowledgements

I view this PhD as a journey of both learning and experience not just academically but personally. Along this journey, several people have joined me and supported me and for that, I am eternally grateful. Without this support and belief, I would not have achieved my journey's end.

Firstly, I would like to thank my supervisors Prof Jan Illing, Prof John McLachlan and Prof Simon Forrest for their support and insight over the period of my PhD. In particular I would like to thank them for the guidance in the conceptualisation of the circuit model and the values model they provided during our supervision meetings.

My colleagues at Newcastle University, School of Medical Education, Research Team, for their ongoing and continued support. I would like to particularly acknowledge the support I received from Dr Madeline Carter and Dr Bryan Burford for their help with the logistic regression modelling in Phase One of this thesis.

Thank you to Durham University for funding the fees.

To HEE NE for support in funding analysis and facilitation of data collection.

I would also like to thank the participants in this study.

Finally I would like to thank my family and friends for their support and encouragement. I would especially like to thank my husband, Richard and my son, James for their unwavering support and belief in me.

Chapter 1: Introduction

This chapter provides an overview of the factors, which are relevant to this area of research. It provides a summary of what is already known in this area and a rationale for this research. In addition, a summary of the major medical education changes which have been introduced over the past ten years have also been given in this chapter. These included changes in assessments, including the introduction of the Annual Review of Competence Progression, work patterns, the shortening of training time.

The UK's National Health Service (NHS) depends upon doctors who are highly trained professionals. If those doctors' professionalism starts to deteriorate or they start to show signs of experiencing difficulties, and this is not managed appropriately and speedily the results can be costly for the NHS, the doctors themselves, and ultimately patients (Watson *et al.*, 2012). Research shows that up to 6% of doctors could potentially cause concerns that would result in disciplinary action (Donaldson *et al.*, 2014). Therefore, there is a patient safety and cost benefit issue to having a better understanding of problems in this area and early detection during training to prevent doctors experiencing difficulties.

A report by the GMC on the *State of Medical Education and Practice in the UK* (GMC, 2016) highlights some of the issues and rising pressures being experienced in the NHS. These include financial pressures and an increased need for more services to meet a population who are living longer (Tallis, 2006; BMA, 2016). There is also an increase in complex illnesses and co-

morbidities (Frith, 2015; BMA, 2016). Expectations of the NHS have increased and patients are expecting to be more involved in their treatment and care plans (BMA, 2016). In a recent survey conducted by the GMC (GMC National Training Survey, 2016) doctors in training reported that high workloads negatively affected their training. Four in every ten trainees reported that their workload was heavy or very heavy. This was higher in some specialty areas such as emergency medicine, surgery and obstetrics and gynaecology, where there has been an increase in patient numbers. Reduced time and an increase in workload pressures were also echoed in trainers' responses, where one in three trainers reported that they had limited time to train doctors despite enjoying the role (GMC National Training Survey, 2016).

A reduction in the quality of training can have an impact on patient safety and retention of trainees and trainers. These competing pressures can influence doctors' professional standards, their performance and their well-being (GMC State of Medical Education, 2016). Despite the pessimistic findings, overall satisfaction in training was positive in the GMC's National Training Survey (GMC National Training Survey, 2016). This may be because the GMC survey asks specifically about training rather than wider issues related to working in the NHS (GMC National Training Survey, 2016). However, this positivity about their training may not be sustainable, if it is not protected. Doctors in training are working in an increasingly pressured environment, where they also report feeling undervalued (BMA, 2016; Gerada, 2016). Therefore, it is important to look at ways forward and examine concerns

highlighted by trainees and trainers (GMC State of Medical Education, 2016; GMC National Training Survey, 2016).

Morale is often low amongst NHS staff following reports of increasing pressure (Gerada, 2016; GMC National Training Survey, 2016; BMA, 2016; GMC State of Medical Education, 2016) and doctors are wanting to practise overseas (BMA, 2016). In a recent BMA survey (BMA cohort study of 2006 medical graduates' tenth report, 2016), specialty trainees reported that their stress levels had increased compared to the same time in the previous year.

1.1 Changing face of medical education

Trusts and educational bodies have become ever more accountable for their actions regarding underperformance and remediation (Cohen and Rhydderch, 2006). This is especially true in the wake of high profile cases such as the Shipman enquiry (GMC Fifth Report, 2005), the Bristol enquiry (Walshe and Offen, 2001), and the Alder Hay Enquiry (Liverpool Hospital Report, 2001), which affected the public's trust in the medical profession (Tallis, 2011). In response to these and other cases, the Chief Medical Officer reviewed medical regulation. The ensuing report 'Good Doctors, Safer Patients' (DH, Good Doctors, Safer Patients, 2003) advised on strengthening the protection of patients and patient safety. A Government White Paper followed this report outlining reforms in medical regulation and recertification (revalidation) of doctors, over a five-year period, based on being able to evidence meeting certain standards and assessments (Oonagh and Pinchen, 2009). The GMC have defined revalidation as: *The process by which all licensed doctors are required to demonstrate on a regular basis that*

they are up to date and fit to practise in their chosen fields and able to provide a good level of care” (GMC, 2017). Recent research (Walsh *et al.* 2016) found that revalidation had improved quality improvement systems and the management of the poor performance of doctors.

The training of doctors was also transformed following recommendations from the then Chief Medical Officer, Liam Donaldson, in his report *Unfinished Business* (Donaldson, 2002). These reforms saw the introduction of *Modernising Medical Careers* (MMC) and the start of the *Foundation Programme* for the first two postgraduate years and a shorter training timescale to become a consultant. Doctors in training also had to achieve and evidence a set of competencies (Oonagh and Pinchen, 2009). The *Annual Review of Competence Progression* (ARCP) was introduced in 2007 to demonstrate that trainees are sufficiently competent to progress to their next level of training (see section on ARCP below).

In 2009 the *European Working Time Directive* (EWTD) (enacted in the UK as the *Working Time Regulations*) was enforced for doctors in training, limiting their working hours to a maximum of forty-eight hours, following a phased reduction of hours for trainees. There was initial concern from several *Royal Colleges* on the impact of the EWTD on doctors’ time to train, giving them less experience with patients and thus less competence (Datta and Davies, 2011). However, many junior doctors were positive about the reduction in working hours, and welcomed the aim to reduce patient safety concerns. However, the introduction of the EWTD did not appear to have improved the challenging rota patterns, which were often viewed as dangerous (Morrow *et*

al., 2014). A survey carried out by the BMA in 2010 found that changes to shift patterns which were introduced to achieve compliance with the EWTD brought about new concerns. There was less time spent on the wards with patients and less continuity of patient care, thus reducing learning opportunities and experience in the progression of diseases. In addition, while actual hours had been reduced, the number of unsocial working hours had increased. Training opportunities were often reported as lost because of rota gaps, which were usually at night where there was minimal supervision and fewer training opportunities (BMA, 2010).

Work intensity increased because work load remained the same, but was carried out within reduced hours (Morrow *et al.*, 2014; BMA, 2016).

Nevertheless, the key drivers for the introduction of the EWTD were to increase patient safety, reduce fatigue, improve the well-being of doctors and help to reduce stress and burnout (Morrow *et al.*, 2014; Block *et al.*, 2012).

There was no quantifiable evidence as to whether training has been affected by the EWTD but, as Datta and Davies (2014) highlight, it was important to protect training opportunities in a busy pressurised service whilst delivering twenty-four hour care to patients safely (Datta and Davies, 2014).

In addition to these significant changes in medical education, more recently there has been disquiet about junior doctors following changes to their contracts, resulting in junior doctor strikes. This has potentially impacted on the public's perception of doctors (Guardian, April 26 2016; Dahl, 2016).

However, the morale and well-being of the junior doctors has also been affected by the forced introduction of the contract in August 2016 (BMA press

release, September 2016). Following the junior doctors' contract announcement there was a significant increase in the number of junior doctors applying for visas to work outside the UK, particularly Australia (The Guardian, November 2015).

Worryingly, statistics from Universities across the UK show that there are fewer applications for medical school places. Numbers fell in 2014 by 13.5 % from 2013 figures, and again by a further 3% in 2015 (BMA, 2016). This drop was also reflected in the uptake of specialty training, which fell in 2016 by 3% compared to 2015. A survey carried out by the UK Foundation Programme on the career destinations of Year Two Foundation Programme doctors reported that only 58.5% of Foundation Programme doctors stated that they were going to progress directly onto specialty training in the UK (UKFPO Career Destination Reports 2011-15, 2016). This showed a further decline from 64.4% (2013), 67% (2012) and 71.3% (2011), showing a steady downward trend (UKFPO, 2016). There was also a shortage in specialties such as psychiatry, emergency medicine and general practice (BMA, 2016).

1.2 Assessment and feedback

There was also a cultural shift in society being less accepting of poor performance in doctors, and an increase in assessments and standard setting for doctors (Cohen *et al.*, 2006). Assessments are a way of measuring a doctor's progress against a set of criteria or set of standards. Schuwirth and van der Vleuten (2006) described assessments as "*any purported and formal action to obtain information about the competence and performance of a candidat*" (Schuwirth and van der Vleuten, 2006, p.1).

Feedback is an important element of learning. Effective, focused and specific feedback from teachers is important for learners to measure their quality of work. Without feedback trainees will self-assess, which does not reflect accurate information for the learner (Colthart *et al.*, 2008). Without feedback the learner may nurture undesired behaviours or even reduce desired behaviours. They may monitor their own learning which means a learner interpreting from another person's perceived cues or feedback from other people's behaviours, which could be misinterpreted (Broquet and Punwani, 2012).

Teachers are often reluctant and uncomfortable about giving negative or critical feedback, and students are often reluctant to receive or seek it (Broquet and Punwani, 2012). This could lead to a 'failure to fail' culture, where students or trainees are awarded a 'pass' because of the high stakes situation for the student/trainee, and it is assumed or hoped that another supervisor will pick up the problems and rectify them later on in their training.

Boud and Molloy (2013) looked at social, cultural and workplace factors, which can have an impact on the content of what is being fed back, on the delivery itself and on how it is received from both the person giving the feedback and those receiving it. The learning environment can challenge feedback in several ways, such as limited time and resources being available and communication within the department. In addition, workplace environments and relationships between teacher and learner can also influence feedback (Boud and Molloy, 2013).

1.2.1 Annual Review of Competence (ARCP)

The number of trainees who require targeted or extended training is relatively small – at less than 5% per year (Paice, 2009). Table 1 provides a summary of ARCP outcomes (a more detailed table outlining all of the ARCP outcomes and the ARCP process is provided in Chapter 3 of this thesis).

Table 1 A summary of Annual Review of Competency (ARCP) outcomes

ARCP Outcomes	Description
1	Satisfactory progress. Competences achieved as expected.
2 (Specialty only)	Targeted training - may progress but requires specific/targeted training to achieve certain competencies.
3	Extended training, up to 12 months (6 months GP and Core) additional training required.
4	Released from training programme with or without specified competences

(Adapted from Gold Guide February 2016, p. 9)

Despite this relatively small percentage a better understanding of the issues involved in this area and early detection of problems during training are key to preventing patients being put at risk (Paice, 2009).

To ensure that doctors in training are competent at the level they are working at and can progress to the next level of training, all UK postgraduate trainee doctors are assessed annually (this may be more frequent if the doctor is showing signs of difficulty). Prior to 1 August 2007 trainee doctors were assessed by the Record of In-Training Assessment (RITA) and those who started on or after 1 August 2007 are assessed by an Annual Review of Competence Progression (ARCP) (DH Gold Guide, 2007). Evidence of their progression over a twelve-month period is taken to a panel who decide whether they are competent in certain skills and have the necessary knowledge to progress to the next level. The competencies are set for specialty trainees (not Foundation doctors) by the Royal Colleges and so vary from specialty to specialty and may include evidencing competency in all areas of the curriculum, and completion of a set of workplace based

assessments and having satisfactory supervisors' reports (Dormandy and Laycock, 2015). However, if a trainee doctor receives an adverse outcome at their ARCP then they may be required to undertake targeted (ARCP outcome 2) or extended training (ARCP outcome 3), or may no longer be able to carry on with their training (ARCP outcome 4) (see table 1 above for a summary of ARCP outcomes). However, it is worth noting that ARCPs may not necessarily be a good measure of what makes a good doctor. In a study by Viney *et al.* (2017) they found that whilst ARCPs were seen as useful (especially by trainers), that they lacked evidence that they were a valid tool for assessing the progression of trainees. Portfolios showed little evidence of content validity Viney *et al.*, 2017 because they were viewed as a tick box exercise (Viney *et al.*, 2017 and Rimmer, 2017).

In their article in British Medical Journal Careers, Dormandy and Laycock (2015) outline several issues with the ARCP process for trainees. Following an external retrospective review of London core medical trainees' ARCP e-portfolios, they found that 90% of trainees who had completed their training in 2014 had not met the programme requirements, but had been thought of as competent by their educational supervisor and the ARCPs. In light of these findings, to avoid local variability and bias, core medical training assessments were changed. Instead of trainees meeting ARCP panels at the end of their twelve-month period to decide on their outcome, the system was centralised so that local representatives and candidates were not represented on the ARCP panel (Dormandy and Laycock, 2015).

Dormandy and Laycock (2015) highlight that this change in process has meant that there have been more 'outcome fives' awarded (additional information required within a two-week period). However, whilst the change in process is a good move in principle, there are concerns. Most worrying is the fact that many trainees receiving an outcome five were surprised as no concerns had previously been raised. Reasons for receiving an outcome five may be relatively minor, such as too few consultants completing multisource feedback, demographic details of the trainee incorrectly entered into the e-portfolio or core procedures having been signed off by registrars not consultants, thus potentially weakening the reason for the ARCP (i.e. a focus on process and not practice) which can mean underperformance can go unrecognised. In addition, the review on core training found that increased service demands have led to a decrease in training opportunities. Centralising the ARCP panels has removed knowledge of the local context, which one could argue should be taken into consideration. This leads to trainees feeling they have no control and are being undervalued, as the process is impersonal and offers no meaningful feedback (Dormandy and Laycock, 2015).

Everyone learns and matures at different rates and therefore some trainees will pass their annual training review at a later stage than their peers.

Trainees often report feeling stigmatised because they have not progressed through their training in the same timescale as their peers. However, it is questionable as to whether trainees should be penalised for this (Paice, 2011). This may be dependent upon a trainees' insight and whether they are willing to act on the feedback given to them explaining the need to extend

their training or to meet specific targets. However, there is stigma attached to what are perceived to be delays and failures in training (Paice, 2011).

However, the annual reviews are high stakes and trainers may be reluctant to commit to questioning a trainee's performance.

1.3 Terms used throughout this thesis

There are many definitions and terms for underperforming doctors and for this thesis an 'underperforming doctor' or a 'doctor in difficulty' will refer to a doctor who is having problems meeting expectations and progressing through their specialty training programme. Overseas doctors have been used throughout this thesis as a general term when referring to International Medical graduates and EU doctors. The terms International Medical Graduates or IMGs have been used when referring to graduates who have graduated from a non-EU country.

1.4 What is already known about poorly performing doctors?

Understanding underperformance and how it can impact on the context of organisational well-being is well recognised in professions outside of the NHS (Cohen and Rhydderch, 2006). If doctors are struggling, then it is important to understand who these doctors are and the issues and barriers pertaining to them having difficulties. It is also important to identify the enablers to support and, in some cases, mitigate underperformance. Research on the prevalence of underperforming doctors is limited and knowledge varies greatly between specialties and studies (Steinert, 2013). However, in a recent Best Evidence Medical Education (BEME) (systematic

review about 'The failure to fail underperforming trainees in health professionals' education' (Yepes-Rios *et al.*, 2016) several barriers of 'failing to fail underperforming students/trainees were identified. Assessors' explanations for not failing students included: the additional time and workload it would incur, that it might reflect badly on their standing as a teacher, fear of a law suit, or to avoid the assessor feeling guilty for failing someone.

Moreover, there was also a conflict between the trainer's responsibilities to support a trainee, whilst also assessing them, and avoiding conflict with a failing trainee. There were also considerations related specifically to the trainee, such as a trainee's emotional state, the level of training the trainee was at and the evaluation tools being used to deal with an underperforming trainee. There was also uncertainty as to the training levels trainees were expected to be at and whether there was enough evidence to substantiate a claim of underperformance, or whether the tools were objective and appropriate. Institutional cultural considerations were related to staff shortages, an institute's reputation, and lastly considerations of available remediation for the trainees were adequate. Enablers were also identified. These included: whether there was support from the institution to back a failing assessment, support from colleagues, and a strong assessment system and finally whether there were opportunities for those who have failed (Yepes-Rio *et al.*, 2016).

1.5 Early warning signs of doctors having difficulty

There are several signs that can suggest a trainee is having difficulty, such as doctors who are difficult to find at work, doctors regularly turning up late to work, at work but achieving less than their colleagues, being quick to lose their temper with colleagues (Paice and Orton, 2004) and, having poor interpersonal skills with colleagues (Evans *et al.*, 2010). There are also problems such as: choosing a career, failing exams or having inadequate knowledge or poor clinical skills for the stage of training they were at (Evans *et al.*, 2010). In addition, if trainees lacked insight into problems they were experiencing, for example following feedback, this was also seen as an issue (Paice and Orton, 2004). Lastly, a lack of insight was identified as one of the most difficult issues to address (Steinert, 2013).

1.5 Possible causes for doctors experiencing difficulties

Many of the difficulties experienced by doctors underperforming are in the *area of professional competence, which has been defined as:*

“The habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served” (Epstein and Hundert, 2002, p.226).

The National Clinical Assessment Service (NCAS) was a service set up in 2001 to provide support for healthcare managers and individual doctors (including trainees) with performance issues. It further expanded to include

dentists in 2003 and pharmacists in 2009 (NPSA, 2009). It aimed to clarify and understand what the performance issues were and make recommendations to help practitioners return to safe practice. It identified a range of factors that could impact on a doctor's performance including: poor health, misconduct, negative behaviours, negative personal circumstances and clinical issues (NPSA, 2009). Issues around progression through training or becoming what is often termed as a 'doctor in difficulty' can fall into several categories, as outlined by Ronson (2011) on doctors in difficulty in general practice. These categories included a lack of knowledge, inability to apply knowledge in clinical general practice, poor skills (practical or communication skills), attitudinal issues, health issues and probity issues.

The management of doctors who perform poorly causes concerns and challenges for those who employ and train them (Cohen *et al.*, 2007).

Factors which can impact on a doctor experiencing difficulties are complex and are not just related to their ability but may be due to personality, motivation, organisational factors, social issues or the health and well-being of the doctor (Paice, 2009, Cohen and Rydderch, 2006; Firth Cozens and Payne, 2006). Exhaustion and fear of failure can also impact on a doctor having difficulty (Steinert, 2013). Specialty training is well known for being a stressful period in a doctor's career (Sargent *et al.*, 2004), especially early on (Collier, 2002; (Bee-Horng *et al.*, 2010).

1.6 Who is known to experience difficulties?

There is also evidence to suggest that overseas doctors are over represented in the later stages of the GMC's fitness to practise processes

(Humphrey *et al.*, 2011; Tiffin *et al.*, 2017). An article in Pulse (2012) reported that the failure rate for International Medical Graduates (IMGs) taking the CSA (Clinical Skills Assessment) component of the MRCGP (Membership of Royal College of General Practitioners) was 63% compared to 9% of UK graduates (Pulse, 2012). A recently commissioned GMC report (Woolf *et al.*, 2016) identified facilitators that differentially impacted on the progression of IMGs, and identified several risk factors that impacted on progression. These included inexperience with UK assessments, anxiety about a higher probability of exam failure, cultural difference impacting on team relationships and unfamiliarity with cultural norms resulting in taking longer to learn about them. NCAS reported on data from 2010 to 2011 finding that overseas qualified doctors were proportionately represented in the GMC Fitness to Practise (FtP) process overall, but were over-represented at the later stages of that process (NCAS, 2011; GMC State of Medical Education, 2016). This means that overseas doctor's progress to the most serious cases of the GMC Fitness to Practise process (Tiffin *et al.*, 2017). Possible reasons for this over-representation may include (i) deficiencies in doctors' clinical performance before they come to the UK, (ii) biased reporting of doctors by other staff or patients; or (iii) difficulties in performance which arose as a consequence of the move to the UK and the cultural difference (Illing *et al.*, 2009).

IMGs face many issues when entering the UK workplace such as: social and cultural isolation, communication and cultural challenges, financial problems and discrimination. A study carried out by Illing *et al.* (2009) found there were differences in the training culture particularly regarding communication, team

working and hierarchy. The patient-centred approach adopted in the UK was an area which many IMGs felt differed from their own country of medical training. This had implications related to communication, involving patients in decision making, taking consent at all stages of a clinical pathway, and the need to inform patients of clinical details and decisions at all stages of their care (Illing *et al.*, 2009). Healthcare systems and regulatory frameworks in different countries may have different values and expectations, causing difficulties when practising elsewhere (Slowther *et al.*, 2012). IMGs require support in three main areas: before coming to the UK, at the point at which they start work and on-going support when they are in their post (Rothwell *et al.*, 2013; Kehoe *et al.*, 2016). However, it is not just IMGs who experience difficulties; older (over 50 years of age) male doctors were at a higher risk of receiving a GMC sanction or warning (GMC State of Medical Education, 2016). A study by Pyne and Ben-Shlomo (2015) found that *mature* doctors (categorised as aged 29 plus), even after adjusting for gender, ethnicity and specialty, were more likely to have problems progressing through their specialty training and passing their ARCP (Pyne and Ben-Shlomo, 2015). They suggested there needs to be more research in this area to investigate possible reasons why mature students are more likely to have problems progressing and what can be done to support them, as there is an increase in more mature students entering medical school and the workforce (Pyne and Ben-Shlomo, 2015).

1.7 Issues experienced by doctors having difficulty

Doctors are reluctant to admit to or seek advice on their health (NCAA, 2004). Doctors may self-prescribe, seek informal referrals to consultants (Campbell and Diva, 2003; Montgomery *et al.*, 2011) and fit in with the culture of having little or no time off when ill (Montgomery *et al.*, 2011). Literature on the physical and mental health of doctors and the effect this has on a doctor's performance is limited (NCAA, 2004; Kay *et al.*, 2008).

Doctors suffer from the usual illnesses; however, research highlights that doctors suffer higher rates of burnout, stress, depression and alcohol and substance abuse than the general population (NCCA, 2004; Ghodse and Galea, 2011). These can have a negative effect on patient safety and can have long-term effects on cognition (NCCA, 2004). Leape and Fromson (2006) reported that issues experienced by trainees who are underperforming may be caused by short-term stressors, for example, life events or issues related to work-life balance. However, there may be underlying stressors that may be more serious in nature, and have long-term effects, for example drug or alcohol misuse and addiction or mental or physical illness (Leape and Fromson, 2006). Alcohol and drugs are often used to help combat the high levels of stress, anxiety and fatigue, leading to depression (NCAA, 2004) and burnout (Ghodse and Galea, 2011).

Working within the health profession has been shown to increase the risk of stress and depression (Hawton *et al.*, 2001). If a doctor is stressed and depressed this can affect attention, memory, decision making and increase irritability. Depression and/or burnout have been shown to be more prevalent

in younger doctors and in doctors in their first few years of specialty training (Shanafelt *et al.*, 2002).

1.7.1 The well-being of a trainee and burnout

Stress among trainee doctors is high (Zwack and Schweitzer, 2013). One study by Firth-Cozens (2003) stated that their average stress levels were 28% compared with 18% in the general working population. Suicide rates amongst doctors, especially female doctors, have been found to be high (Hawton *et al.*, 2001; Meltzer *et al.*, 2008; Shanafelt *et al.*, 2011). Suicide in doctors has been linked to job stress (Shanafelt *et al.*, 2011; Tyssen *et al.*, 2001) and personality (neuroticism) (Tyssen *et al.*, 2001).

Related to a trainees' well-being is the issue of burnout, a psychological syndrome affecting professionals who work in a complex and caring domain (Maslach, 1982). It includes three areas: depersonalisation, emotional exhaustion and a sense of low personal accomplishment; all three areas are related to a decreased work performance (West *et al.*, 2006). Burnout is an individual experience related to a work context. Hyman *et al.*, (2011) identified several factors believed to be the main issues for the development of burnout: occupation type (nurse or doctor), organisational impact such as work intensity, demographic, personality characteristics and attitudes (Hyman *et al.*, 2011).

Research shows that medical students and trainee doctors suffer from a high prevalence of mental health and burnout, which can in turn be linked to depression and poor patient care (Dyrbye, 2006; Prins *et al.*, 2007; Cohen *et*

al., 2008; Dyrbye *et al.*, 2014; Dyrbye and Shanafelt, 2016) and is more widespread among medical doctors than amongst their peers in the wider population (Dyrbye, *et al.*, 2014). However, it is not known whether burnout is more prevalent among medical trainees than trainees preparing for other high demanding professions such as training to be a pilot, going into the police force or into the military (Dyrbye and Shanafelt, 2016). Burnout has been found to influence both professional and personal life (Dyrbye and Shanafelt, 2016). It can also affect a trainee's professional life, for example lead to a decrease in empathy, an increase in medical errors, influence specialty choice, impact patient care, decrease altruistic professional values, and decrease personal accountability. It can also have a profound effect on one's personal life, for example it can manifest itself through suicidal thoughts, a greater sense of stigma related to mental health problems and motor vehicle accidents (Wallace *et al.*, 2009; Dyrbye and Shanafelt, 2016). Moreover, Spikard *et al.* (2009) reported that dedicated physicians may be more likely to put professional duties such as supporting colleagues and effective communication with patients and families first, before their personal life. These doctors tend to be viewed more favourably at work, but possibly at the detriment of their personal life, and work-life balance. This can lead to a greater risk of burnout (Spikard *et al.*, 2009).

Several studies have hypothesised that the poor performance of residents is in part due to burnout, depression, and negative work environments (Mitchell *et al.*, 2005, cited in Beckman *et al.*, 2011). Girard *et al.* (1991) identified that psychological states can influence exam scores (Girard *et al.*, 1991). Filho and Vieira (2007) identified that the basic science knowledge of

anaesthesiology residents was found to be associated with academic performance anxiety (Filho and Vieira, 2007). However, other research has not identified a connection between exam performance and resident well-being (West *et al.*, 2010) or medical knowledge and well-being (Beckman *et al.*, 2011). However, in a study by West *et al.* (2011) with a larger sample size than Beckman *et al.*'s. (2011) study a relationship between residents' well-being and medical knowledge was identified.

1.8 Academic Indicators of Underperformance

Studies have shown a relationship between cognitive skill and quality among practising physicians (Papadakis *et al.*, 2004). Unprofessional behaviour in medical school has been shown to be associated with subsequent disciplinary action by a state medical board, which is a concern because many physicians have performance problems that do not reach the attention of the state medical boards.

A meta-analysis of twenty-two articles found that non-white ethnic groups were more likely to underperform than UK white graduates (Woolf *et al.*, 2011). This was a similar finding to Esmail and Roberts (2013) who looked at failure rates in the Membership of Royal College of General Practitioners (MRCGP) exams by ethnicity or national background. They found that BME graduates were more likely to fail their Clinical Skills Assessment (CSA) part of the MRCGP exam (Esmail and Roberts, 2013). McLellan (2010) carried out a retrospective analysis of results from residency clinical exams in Quebec, and found that IMGs were more likely to fail their exams than Canadian and American residents (McLellan, 2010). In addition, IMGs were

found to be more likely to receive an unsatisfactory ARCP outcome compared to their UK counterparts, unless they scored highly (in the highest twelfth) on their Part 1 Professional and Linguistic Assessments Board (PLAB) test then they received satisfactory ARCP outcomes like those of UK graduates (Tiffin *et al.*, 2014).

1.9 Personality Indicators of Underperformance

Personality has been defined as; individual differences in characteristic patterns of thinking, feeling and behaving' (American Psychological Association). Personality affects communication and interaction. Personality can also affect safety, probity and honesty of individuals (NCCA, 2004). It is widely agreed that there are five relatively independent high-order dimensions of personality, which are known as the 'Big-Five' or Five Factor Model (FFM) (Finn *et al.*, 2015). These dimensions are widely used within personality research. The personality dimensions include; neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (Lievens *et al.*, 2009, IPIP, 2017). Individuals who are high on neuroticism tend to be more insecure, anxious and worry more (Lievens *et al.*, 2009). Individuals who are high in extraversion tend to be seek excitement and are energetic, and assertive (Lievens *et al.*, 2009). Individuals who are more open to experience often have a flare for originality, imagination and are curious in nature (Lievens *et al.*, 2009). Individuals who show tendencies of agreeableness are more altruistic, caring, sensitive affectionate and co-operative (Lievens *et al.*, 2009). Finally, individuals who are conscientious strive for achievement, dependability, persistence,

prudence, order and impulse control ((Lievens *et al.*, 2009). Personality traits such as extraversion, self-esteem, neuroticism, openness, and in particular conscientiousness have been found to be important traits in a clinical environment (Doherty and Nugent, 2011). Some personality traits, such as perfectionism and being highly self-critical, which can be related to medical culture, can contribute to psychological morbidity (Ghodse and Galea, 2011). A relationship has been found between personality and performance. The domain conscientiousness is well established within education as a good predictor of workplace and academic arenas (Costa and McCrae, 1992; Barrick *et al.*, 2001; Finn *et al.*, 2015). Research by Cohen and Rydderrch (2006) identified that being high on conscientiousness and low on neuroticism were found to be positively related to good job performance (Cohen and Rhydderrch, 2006). In contrast, if someone has low conscientiousness and high neuroticism they are more likely to underperform (Paice, 2003). Neuroticism has been linked with a lack of contentiousness and high levels of stress (Beckmann *et al.*, 2010; McManus *et al.*, 2004), indicating a preference for work over work-life balance and may result in an increase in an individual experiencing stress.

Attitudes of an individual influence behaviour and can influence safety attitudes. For example, if someone has a 'macho' style behaviour they may not recognise their preference towards risk taking. In a stressful or emergency situation, they may be unable to work effectively within a team and be sensitive to others. Attitudes can be related to personality type or they can be cultural. If cultural they may be easier to modify and change (NCCA, 2004).

1.10 Support and remediation

Following the report *Good Doctors, Safer Patients* (Good Doctors Safer Patients, 2006) there has been a move to provide more support for doctors with mental health issues and addiction problems. Alongside this, there has been a lower tolerance of underperforming doctors, which has created a need for educational supervisors to focus more on remediation to support underperforming doctors (Cohen *et al.*; 2010). Cleland *et al.* (2013) carried out a systematic literature review to understand how and why remediation interventions work. The review concluded that interventions are often focused on providing support for exams or assessments previously failed, with a lack of information about insight into support work or teaching, which is essential for developing learning.

Resilience has been identified as an important aspect within medical education, which needs further exploration. Epstein and Krasner (2013) have described resilience as *“the ability of an individual to respond to stress in a healthy, adaptive way. Such that personal goals are achieved at minimal psychological and physical cost; resilient individuals not only “bounce back” rapidly after challenges but also grow stronger in the process”* (Epstein and Krasner, 2013, p.301).

A persons resilience can be influenced by individual and environmental factors (Howe *et al.*, 2012). Resilience can explain why some individuals deal with difficult or stressful situations differently (Rutter, 2012). For example,

some people are able to overcome adversity whereas some find it more difficult when faced with a similar adversity. Rutter (2012) has described this as 'sensitising effect' (having a negative affect on the individual) or as a 'steeling effect' (having a positive or strengthening effect on an individual) in relation to how an individual deals with stress (Rutter, 2012).

Jensen *et al.* (2008) have identified strategies to enhance resilience. These were, firstly, attitudes and perspectives, for example valuing a doctor's role (i.e. the trainee's motivation for becoming a doctor); being able to accept personal limitations; having realistic expectations relating to patients, and the working environment (work intensity). Good personal reflection was also seen as important to help promote a doctor's well-being. Secondly being able to balance and prioritise work and training, for example setting limits for oneself, having realistic expectations, and having clearly defined boundaries between themselves, patients and colleagues (and not being available all of the time). Thirdly having an effective business management strategy and good staff. The final aspect to resilience was supportive relations, for example good personal relationships, effective professional relationships and good communication. Balint groups were mentioned as a good peer supportive network and found to support Continuing Professional Development (CPD) for General Practitioners (Jensen *et al.*, 2008). Self-directed learning groups were also found to be supportive for CPD for GPs (Morrow *et al.*, 2012).

1.11 Summary of indicators related to underperformance

The recruitment and retention of doctors is currently a major concern (GMC, 2015). This is causing additional pressure on certain specialties which are operating with doctor shortages (GMC State of Medical Education, 2016). In addition, many doctors in training posts experience high levels of stress and burnout, affecting their health and impacting on patient safety (Drybye and Shanafelt, 2016). The cost of training a doctor is high (over £480k to train a GP and over £700k to train a consultant) (GMC, 2015), therefore highlighting the need to retain doctors and offer remediation, if needed. It is not clear why doctors in training may experience difficulties, and a range of issues have been explored above. Some of this may be due to certain personality traits such as low conscientiousness, high neuroticism or low self-esteem, or it may be that organisational issues, such as a lack of support in the training environment, make the role of a junior doctor especially challenging.

To date, there is limited understanding to explain why trainees receive adverse ARCP outcomes or to understand whether some trainees are more at risk than others of experiencing difficulties progressing during their training. Understanding the impact of underperformance and how best to remediate it is not well researched in an NHS context (Cohen and Rhydderch, 2006). Doctors in training are the future consultants and GPs and, therefore, understanding what factors impact on doctors progressing through their training and what factors are related to underperformance in training is arguably vital for the sustainability of the NHS.

In the following chapters I aim to identify who is most at risk of receiving an adverse ARCP outcome and factors associated with underperformance, and to identify potential barriers and enablers to support underperforming doctors. The focus of this thesis is on postgraduate trainee doctors and trainers working in secondary care. I anticipate that as trainees work in a similar training system and within the shared context of the NHS, many of the findings will be generalisable to a wider population of trainees undergoing ARCP assessments. Therefore, having a better understanding of problems in this area and early detection of doctors experiencing difficulties will be both better for them and also for their patients.

1.12 Chapter Summary

In this introduction, I have provided an overview of the factors likely to be relevant in this area of research. I have summarised the major medical education changes introduced over the past ten years. These included changes in assessments, including the introduction of the Annual Review of Competence Progression, work patterns, the shortening of training time through the introduction of MMC and the impact that the EWTD has had on training, and the introduction of revalidation and focus on remediation.

Factors which impact on trainees' performance are complex and multiple in nature. It may start with their personality or country of graduation (or both). Secondly, it may be that trainees have not received adequate feedback and this has contributed to their underperformance or, thirdly, the service demands and work intensity impact on a trainee's ability to progress. An in-

depth understanding of the factors and how they interact with each other and impact on trainees underperforming is needed.

The overall aim of this thesis is:

To identify the factors that either facilitate or hinder medical specialty trainees in their Annual Review of Competence Progression (ARCP), with a focus on adverse ARCP outcomes.

The objectives to answer the overall aim were:

1. To identify which specialty trainees have difficulty progressing through their annual review and the reported reasons why (phase one)
2. To examine the literature and identify the indicators that are associated with doctors who are experiencing difficulties with progressing during their postgraduate medical training (phase two)
3. To identify trainer and trainee perceptions of the barriers and enablers to progressing through specialty training (phase three)
4. To develop a model that will help identify which doctors are most at risk of adverse ARCP outcomes, in order to improve support for them (phase three and informed by phase one and two)

1.13 Thesis outline

The following section introduces the reader to each chapter. However, at the beginning of each chapter, a summary will be provided outlining in more detail the chapter content.

- Chapter 1: Introduction -This chapter introduces the thesis and provides an overview of what is known in this area in terms of existing research and policy. It also provides the rationale for this thesis.
- Chapter 2: Methodology - This chapter highlights the methodology followed in this thesis, looking at the conceptual approaches. It also gives a summary of the diverging types of Grounded Theory. The methods and practical considerations followed in this thesis are summarised in this section but a fuller description of methods is provided in each of the three Phases within each chapter.
- Chapter 3: This chapter presents findings from Phase One which is a scoping exercise, which looked at retrospective data held by one Health Education England local office on doctors in training who had received an adverse outcome in their annual training review (ARCP). The methods for data collection will also be provided in this chapter.
- Chapter 4: This chapter presents data from Phase Two of the thesis. This is the systematic review of literature on studies to identify the indicators that are associated with doctors who are experiencing difficulties with progression during their postgraduate medical training. Methods followed in the literature review will also be provided in this chapter.

- Chapter 5. This chapter will outline the Grounded Theory methods followed in Phase Three (interviews with trainees who had received adverse ARCP outcomes and trainers) of the data collection, including the practicalities and the ethical considerations during this phase.
- Chapter 6: This chapter presents data from Phase Three which was a Grounded Theory study on in-depth interviews with trainees who had received an adverse outcome in their annual review (ARCP) and with trainers. Findings explore what factors contributed to these doctors receiving adverse outcomes and what the risks and enablers were to progression.
- Chapter 7: This chapter presents a model focused on core values. It aims to explain which doctors are most at risk, and why. This chapter brings together findings from the thesis and synthesises them into a model.
- Chapter 8: Discussion and Conclusion -This chapter offers a discussion and synthesis of all the findings and includes a model explaining who is at risk and adding how to support and facilitate a positive ARCP. The discussion concludes findings from all three phases of the research and presents a 'circuit model' to summarise the facilitators and risk factors found in this thesis. This chapter also presents a screening tool. This chapter provides a discussion of future research and further steps. It also highlights policy implications and makes recommendations.

Chapter 2 Methodology Chapter

This chapter details the methodological approach to the study including the rationale for using Grounded Theory. It also summarises my methods for each phase of the research. A more in-depth outline of methods, including ethical considerations, data collection methods and techniques used throughout this thesis is in each data chapter (Chapters 3, 4 and 5).

2.1 Research Aims and Questions

The overall aim of this thesis is:

To identify the factors that either facilitate or hinder medical specialty trainees in their Annual Review of Competence Progression (ARCP), with a focus on adverse ARCP outcomes.

The objectives to answer the overall aims were:

1. To identify which specialty trainees have difficulty progressing through their annual review and reasons and reported reasons why (Phase One)
2. To examine the literature and identify the indicators that are associated with doctors who are experiencing difficulties with progressing during their postgraduate medical training (Phase Two)
3. To identify trainer and trainee perceptions of the barriers and enablers to progressing through specialty training (Phase Three)

4. To develop a model that will help identify which doctors are most at risk of adverse ARCP outcomes, in order to improve support for them (Phase Four)

2.2 Theoretical Perspectives

The purpose of this section is to highlight the different theoretical perspectives (also called research philosophies or stances) and to highlight the assumptions that are made about the creation of knowledge in research (Guba and Lincoln, 2005). The study of the natural world aims to explain phenomena (e.g. gravity) using methods that are repeatable and generalisable in order to understand and make predictions (Illing, 2013). Concern has focused on whether it is appropriate to use the same methods for studying the natural world when studying the social world, for example gravity versus trainees who are having difficulties progressing in their training. Research that can make generalisations and is predictive in terms of laws and cause and effect and measurement is often considered superior to other forms of knowledge. The methods used to study the natural world do not fit easily with the methods used to study the social world. The debate starts with the study of being – *ontology*. This is concerned with the structure of existence and reality. The focus starts with a researcher's assumptions of the basis of reality i.e. there is a real reality (gravity) or there are multiple realities (views of trainees) (Illing, 2013).

The next stage *epistemology* is to consider the theory of knowledge and how we access this. If we assume that there is a real reality, then we can also assume that the human researcher can have access to it objectively.

However, if we assume that there are multiple realities then we become aware of the subjectivity of the researcher, and others views (Illing, 2013).

There are several main theoretical perspectives within research: positivism, post-positivism and constructivism. These theoretical perspectives underpin the researcher's methodology and are governed by the researchers' assumptions that they make about the social world. The different theoretical perspectives change depending upon assumptions made about social reality (Illing, 2013). The three main theoretical perspectives will be summarised in the following section.

2.2.1 Positivism

A positivist approach looks at the explanation of what the human behaviour is. It tries to be predictive and prove or disprove a theory or hypothesis. Positivists view the social world as essentially the same as the natural sciences and researchers aim to identify patterns and rules, which would determine an individual's behaviour and social behaviour. This assumes that there is a reality and the aim is to explain the natural and social world by cause and effect thus having an objective view of the world can be achieved (Illing, 2013). Methods utilised in this approach are mainly quantitative.

2.2.2 Post-positivism

This perspective came about due to disillusionment with positivism because the outputs were often theoretical, rather than observed, providing a perspective rather than truth (Illing, 2013). The post-positivist approach still seeks objectivity, like positivism, but it is not absolute. It is recognised that by

studying something, one can change the phenomena. Collecting of both qualitative and quantitative data is encouraged to help answer the research question. Quality is assessed by using the same standards as positivism, such as validity, reliability and generalisability. New knowledge is added to old in the same way as it is in the positivist paradigm. For example, a systematic literature review would be considered post-positivist as it attempts to define a method that is standardised (by rating the quality of the research design and methods), repeatable (by following a clear exclusion and inclusion criteria), but subject to the human researcher who may interpret data differently from another researcher. Phase One (scoping exercise) and Phase Two (literature review) drew on this theoretical stance in answering research questions which were aiming to identify indicators that are associated with doctors who are experiencing difficulties with progression during their postgraduate medical training and aiming to identify a consensus about the risks and vulnerabilities. Similarly, in Phase One the aim was to identify which specialty trainees had difficulty progressing through their annual review by interrogating retrospective ARCP data to identify characteristics and demographics.

2.2.3 Constructivism

In contrast, a constructivist approach believes that knowledge is constructed between the researcher and the data, with multiple views of reality. The researcher must be aware that they cannot be neutral and that they bring their own experience, knowledge and values to the research whilst working towards uncovering a new understanding (Illing, 2007). Constructivists

believe that all meaning is socially constructed (Illing, 2013). A constructivist approach tries to understand, and make some sense from, human behaviour (Illing, 2007).

Constructivists do not begin with a theory (as with positivists and post-positivists), rather they: "*generate or inductively develop a theory or pattern of meanings*" (Creswell, 2003, p.9) throughout the research process. Reality depends upon how it is perceived by an individual, who may interpret things differently from another individual. This perception of reality can change over time depending upon, for example, experiences or knowledge. Therefore, constructivists approach reality as subjective. The knowledge gained from the research is a new concept but seen through the lens of the researcher (Illing, 2013). A constructivist researcher is most likely to rely on qualitative data. My research question for Phase Three was to identify trainer and trainee perceptions of the barriers and facilitators to progression through specialty training. Here I am collecting data about the subjective views of the trainers and trainees about specialty medical training, and I am adding my own interpretation and constructing new meaning about this data.

The final research objective was to develop a model that will help identify which doctors are most at risk of adverse ARCP outcomes, in order to improve support for them, and this was drawing on the data collected in Phase Three and informed by Phases One and Two.

2.3 Phases of the research

Research was conducted in three phases building upon and investigating data in each stage of the research. Data collection in all three phases was designed to gain a deeper understanding of what is happening to answer the research question and objectives. A detailed method for the three data collection phases will be discussed in Chapter 3 (Phase One), Chapter 4 (Phase Two) and Chapter 6 (Phase Three). The following sections will outline the methodology for Phase Three in depth.

2.4 Phase three: Qualitative Interviews

To identify doctors in training who had received adverse ARCP outcomes (outcome 2, which equates to targeted training, and outcome 3, which equates to extended training) and explore what factors contributed to these doctors receiving these outcomes and what factors, if any, contributed to later success.

2.4.1 Philosophical approach for phase three

Prior to and during this research, I was aware that my previous knowledge and worldview could influence my research. Therefore, it was important that I explore my own philosophical assumptions. Crotty (1998) highlights four elements or questions, which researchers must ask prior to conducting research:

- What methods do we propose to use?
- What methodology governs our choice and use of methods?
- What theoretical perspective lies behind the methodology in question?

- What epistemology informs this theoretical perspective?

It is important to understand that each of these four elements interconnect and are intrinsically linked throughout the whole of the research and not just at the design stage but also through to the analysis and development of a theory.

2.4.2 Epistemology

Epistemology is the theory of knowledge, which is embedded in the theoretical perspective and methodology (Crotty, 1998). An inductive approach has been used, where the research has been data driven. This contrasts with a deductive approach, which starts with a theory that is tested via a hypothesis (Bryman, 2008).

The research has taken an interpretivist approach; this respects differences between people in the social world (Bryman, 2008). It draws upon theories such as Phenomenology, which is the science of how individuals make sense of the world around them (Bryman, 2008). At this point, I feel that it is important to highlight the distinction between an interpretivist and a positivist approach within research.

2.4.3 Theoretical approach

My research was exploratory and set out to 'identify and explore what factors contribute to doctors receiving adverse speciality training outcomes'. I did not set out at the start of the research with a hypothesis or theory to prove or disprove. I was interested in focusing on and understanding the different

factors that contribute to difficulties in specialty training and create a *thick* description to help explain what is happening. Every research participant had their 'story' to tell, and from their perspective and it was important that this was encouraged so that the findings came directly from the participants rather than any existing preconceived ideas and theories.

2.4.4 Ontological Orientation

An Interpretive Constructivist Theory approach was used in Phase Three. The interviewer focuses on specific contexts that participants live and work in, to understand and interpret what is happening (Rubin and Rubin, 2005). Researchers try to make sense of the findings and interpretation is shaped by their own background and beliefs (Cresswell, 2007). Therefore, an interpretive constructivist approach was deemed the most appropriate form of constructivism to answer the research questions.

2.4.5 Theoretical Perspective - Symbolic interactionism

Symbolic interactionism is a constructivist way of thinking. It assumes that meanings and fixed realities are an object of collective processes (Charmaz, 2009). Symbolic interactionism, which has its origins in Sociology and Social Anthropology, accepts that people create their own meaning of society and the reality they live in through their everyday interactions (Bryant and Charmaz, 2010). It tries to focus on the relationships between meaning and action so meanings arise out of actions and in turn influence those actions. Denzin (1978) states: "*methodologically, symbolic interactionism directs the investigator to take, to the best of his ability, the standpoint of those studied*"

(Denzin 1978, p.99 cited in Crotty, p.75). To reach this understanding, Denzin states the researcher needs to interact with the participants being studied through, for example, interviewing. In this way, the researcher can become aware of the perceptions, feelings, thoughts and attitudes of others to enable their interpretation and meanings to emerge (Crotty, 1998). Due to my background in social anthropology, I found the symbolical interactionist lens fitted well with the anthropological way of viewing the world.

2.4.6 Research Rigour

Research rigour is important in establishing the quality of research and highlights how trustworthy and transparent the qualitative research is. In quantitative research, this is done through the validity, reliability and generalisability of the research (Bryman, 2008).

Lincoln and Guba (1985) and Guba and Lincoln (1994) established terms and ways to assess qualitative research, which would offer an alternative to the quantitative rigour. Therefore, they developed two main criteria to assess qualitative research: trustworthiness and authenticity (Bryman, 2008).

Trustworthiness is made up of four criteria, which can be mapped onto quantitative criteria. They also developed a set of questions to ensure the quality of the research is met. These are outlined below:

- Credibility (internal validity in quantitative research) – how truthful are the findings?
- Transferability (external validity in quantitative research) – how applicable are the findings for the setting?

- Dependability (reliability in quantitative research) – are the findings consistent and reliable?
- Confirmability (objectivity in quantitative research) – have the findings considered possible biases or influences?

To help ensure that research rigour was met within this thesis, triangulation, reflexivity and transparency with the data collection and the analytical process took place.

2.5 Methodology

The overall methodology used to inform the research for Phase Three was a constructivist grounded theory approach (Charmaz, 2006). Urquhart *et al.*, (2002) viewed Grounded Theory as ‘symbolic interactionism’.

Grounded Theory is an iterative approach, which enables the researcher to collect some data, and analyse it to inform the next stage of data collection. In this way ideas can be tested and developed as data is collected, and findings are constantly being compared. Grounded Theory differs from other forms of qualitative methods because it goes a step further with the data analysis to develop understanding and a theory. Urquhart *et al.*, (2010) maintained that in Grounded Theory the researcher is building, not verifying, a theory (Urquhart *et al.*, 2010).

Grounded Theory has been described as:

“A qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon” (Strauss and Corbin, 1998, p.24)

“A set of well-developed concepts related through statements of relationship, which together constitute an integrated framework that can be used to explain or predict phenomena” (Strauss and Corbin, 1990, p.15)

2.5.1 The Approach - theory generating not theory testing

Grounded theory assumes you go into data enquiry with no hypothesis or assumptions about the data: *“a researcher does not begin a project with a preconceived theory in mind”* (Strauss and Corbin, 1990, p.12). It is a way of explaining the data and generating a theory from the data rather than using a theory or hypothesis as the starting point, and is therefore driven by the data.

Grounded theory is an iterative approach, which enables the researcher to collect some data and analyse it, which in turn informs the next stage of data collection. In this way, ideas can be tested and developed as data is collected and findings are constantly being compared. Collection of data and analysis are ongoing to inform further simultaneous data collection.

Grounded theory uses purposeful sampling and selection of data and their sources for their ability to provide data to confirm, challenge or expand on an emerging theory (Charmaz, 2009).

The research questions and focus of enquiry for this research draw upon literature and a scoping exercise but the theory will emerge from the research data and therefore an inductive approach has been used. This contrasts with a deductive approach, which is to prove a hypothesis or theory (Bryman, 2008). Stark and Trinidad (2007) state that grounded theory is a useful method in health service research as it helps the researcher to better understand what is happening within a given area of study. The researcher can see how social processes are structured and constructed by the physical and social environment (Stark and Trinidad, 2007) in which they (doctors) practise.

2.5.1.1 Origins of Grounded Theory

Grounded Theory originates from two sociologists, Strauss and Glaser, in the 1960s (Glaser and Strauss, 1967). They aimed to develop an approach which was systematic and would match the rigour of quantitative research. In 1978 Glaser and Strauss developed Grounded Theory in different directions. Glaser stuck by the original methodology whereas Strauss developed, in partnership with Corbin (1990), a new dimension of grounded theory (Straussian). Charmaz, a doctoral student of Glaser and Strauss, later developed a third type of grounded theory (Constructivist) (Charmaz, 2009).

2.5.1.2 The three divergent types of grounded theory

There are three dominant types of grounded theory: Classic (Glaser), Straussian, and Constructivist (Charmaz). The following section provides a brief history of grounded theory and outlines the three dominant types looking at the similarities as well as differences between them.

During the 1960s qualitative research was not held in high regard compared to quantitative research and so Glaser and Strauss set out to change this, developing the grounded theory methodology by promoting the generation of new theories rather than testing out existing theories (Watling and Lingard, 2012). Glaser and Strauss's aim was to design a qualitative methodology that would match quantitative rigour. However, it was initially not met with support, until approximately twenty years later (Strauss and Corbin, 1994) when Grounded Theory and its appearance became significant in the development of qualitative research, as highlighted in this quote from Charmaz on discussing the development of Grounded Theory:

[The development of Grounded theory]...*“transformed methodological debates and inspired generations of qualitative researchers”*

(Charmaz, 2006, p.7)

By 1978, Glaser and Strauss had parted company. Glaser opened a publishing house, 'Sociology Press', and went on to develop what is known as 'Classic Grounded Theory'. Strauss formed an academic partnership with Juliet Corbin, developing a new methodology: 'Straussian Grounded Theory'. Together Strauss and Corbin wrote 'Basics of Qualitative Research:

Grounded Theory Procedures and Techniques (Strauss and Corbin, 1990; Kenny and Fourie, 2015).

However, Glaser did not recognise this as Grounded Theory and criticised Strauss and Corbin's work. In two personal letters (which were later published by Glaser) Glaser wrote to Strauss stating his disapproval:

“your work is fractured and scattered, it distorts and misconceives grounded theory....you wrote a whole different methodology so why call it Grounded Theory?” (Glaser, 1992, p.2)

Strauss and Glaser continued to develop their own versions of Grounded Theory but continued to disagree until Strauss's death in 1996. Since Strauss's death, Corbin has continued to develop Grounded Theory, moving more towards a Constructivist approach (Kenny and Fourie, 2015). In 2006 Kathy Charmaz, who had been a doctoral student of Glaser and Strauss's, developed a new Grounded Theory methodology: 'Constructivist Grounded Theory'. Charmaz developed Grounded Theory further and made it more contemporary, putting more emphasis on understanding than explaining the data (Charmaz, 2006).

2.5.1.3 Main differences between the three types of Grounded Theory

The main differences between the three types of grounded theory are the coding frameworks used, their underlying philosophical stances, and at what point of the research they utilise the literature (Kenny and Fourie, 2015).

2.5.1.4 Critiques between the methods

All three types of grounded theory believe in conducting literature reviews; however, it is the timing of when they are done which is crucially different (Dunne, 2011). In Classic Grounded Theory, the researcher does not look at any literature prior to doing data collection or analysis, believing it distorts a researcher's ability to see new concepts in the data.

However, Strauss and Corbin, and Charmaz, believed the researcher can consult the literature prior to data collection and analysis but need to be mindful of it not biasing the data. This was one of the main reasons that constructivist Grounded Theory was chosen for this thesis for practical reasons. A literature review and some prior knowledge of the literature must be undertaken to be able to write a proposal for a PhD but also for an application to an ethics committee. Therefore, literature was accessed prior to data collection but literature was not looked at during data collection and analysis to ensure that literature did not influence these phases.

2.5.1.5 Coding framework

Strauss and Corbin's Grounded Theory was criticised by both Glaser and Charmaz for making the coding overcomplicated, criticising the coding framework for being overcomplicated and inflexible. Glaser commented that they were: *"Forcing the data into 'preconceived' concepts in order to coerce a theory"* (Glaser, 1992, pp. 3-4). Charmaz commented that they had: *"Transformed the original 'flexible' coding guidelines into 'immutable rules' which she characterized as positivist, rigid, narrow and over complicated"* (Charmaz, 2000) (Cf: Kenny & Fourie, 2015, p.1277).

In response to this criticism, Strauss and Corbin defended their coding framework by saying that their coding frame should be used flexibly depending on what is being studied (Kenny and Fourie, 2015). The different stages of the coding are there to help the researcher remove any pre-conceived ideas and enter the analysis of the data as objectively as possible. Also, they were necessary to help the researcher to be as systematic as possible in their analysis (Strauss and Corbin, 1990).

2.5.1.6 Philosophical stance

One of the crucial differences between the three types of Grounded Theory was in their philosophical stances and their belief in how much the researcher should be part of the data. A criticism of Classic Grounded Theory was that it did not state their philosophical stance. Instead, Glaser thought of Grounded Theory as a research method, which he separated from

philosophical considerations. However, because of this lack of philosophical stance it has meant that Grounded Theory has sometimes been a *“misinterpretation and misuse of method”* (Moore, 2009, p.8, cf Kenny and Fourie, 2015). Charmaz argues that: *“Classic Grounded Theory is correlated with positivism which assumes ‘an objective, external reality, a neutral observer who discovers data’”* (Charmaz, 2000, p.510 cf Kenny and Fourie, 2015). Glaser was influenced by his positivist and quantitative training (Charmaz, 2000; Bryant, 2002, cf Kenny and Fourie, 2015). However, Glaser defends this lack of philosophical stance by stating that:

“... Grounded Theory is a general inductive method possessed by no discipline or theoretical perspective or data type” (Glaser, 2004)

In contrast, constructivist Grounded Theory embraces the researcher’s experience and beliefs and tries to recognise the impact this can have on the data and reflect on it; by doing so the researcher can minimise bias.

Charmaz believed that: *“it is impossible to remain abstract from the social research as ‘we are part of the world we study and the data we collect’”* (Charmaz, 2006, p10, cf: Kenny and Fourie, 2015).

However, Glaser strongly criticises this way of thinking by stating that it conceptualises participants’ opinions rather than provides a true description of them, and is too narrative in nature (Glaser, 2002). In addition, the researcher has too much of an equal standing in the research: *“the researcher should take great pains not to intrude their own views within the data”* (Glaser, 2002 cf: Kenny and Fourie, 2015). Whereas, a Constructivist Grounded Theory approach *“places priority on the phenomena of study and*

sees both data and analysis as created from shared experiences and relationships with participants and other sources of data . . .and, acknowledges that the resulting theory is an interpretation” (Charmaz, 2006, p.130).

As I had some prior peripheral knowledge of this line of enquiry, (as a researcher in medical education for several years), it was impossible to separate that knowledge and experience from this research. Constructivist Grounded Theory enabled me to recognise that this prior knowledge and experience could shape and influence the data and impact on the interpretation of the data. This method also enabled me to build upon the literature and interview data whilst recognising and minimising researcher influence as much as possible.

The following table offers an overview of the three different types of Grounded Theory.

Table 2 Summary of similarities and differences between the divergent types of Grounded Theory

Type of GT	Classic	Straussian	Constructivist
Founders	Glaser	Strauss & Corbin	Charmaz
Philosophical stance	Positivist	Post-Positivist/Symbolic Interactionism	Symbolic Interactionism/ Constructivist
Literature Review	Not during data collection and analysis	During study but not comprehensive	During study but not comprehensive As a separate chapter
Coding	4 main stages	5 main stages	3 main stages
Theory generation	Yes	Yes	Yes
Memos	Yes	Yes	Yes
Constant comparison	Yes	Yes	Yes

2.5.1.7 Constructivist Grounded Theory

Constructivist Grounded Theory puts more emphasis on understanding rather than explaining the data (Cresswell, 2003). This is driven by the research question and phenomena to be explored. Existing research on this topic was mainly quantitative in nature and did not explore in depth why some doctors experience more difficulties than others progressing through their postgraduate training.

2.6 Methods

The previous sections within this chapter have discussed the research paradigm and the methodological approach taken for this thesis. The following section of this chapter provides a summary of the methods used to collect and analyse the data. A more in-depth methods section is provided under each of the findings chapters (Chapters 3, 4 and 5).

Data was collected using a mixture of retrospective observation of ARCP data, a literature review and in-depth interviews with trainees who had received an adverse ARCP outcome, and with trainers in secondary specialty training. In utilising a mixed method approach, I could follow where the data took me and follow up on gaps in the data. Initially, I had planned to use a survey technique to see why trainees were having difficulties, at what stages, and why they were having difficulties progressing. However, one of the findings from the literature review was that previous research in this area had mostly used surveys. I wanted to understand what was going on in more depth rather than know what the problems were. I had a hunch that issues were not one-dimensional and that there were interconnected multi-dimensional issues and factors at play. Therefore, I decided to use in depth one to one interviews with trainees and trainers to explain some of the indicators that had emerged from the literature review but also allowing new ideas to emerge from the interview data.

The following data collection methods were used:

1. Retrospective Observational Study
2. Literature Review
3. Interviews with trainers and trainers in Specialty training

2.6.1 Mixed Methods Approach

A mixed methods approach was used in this research as it was deemed the best approach to answering the research question and objectives of the study.

“Conducting mixed methods research involves collecting, analysing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon”
(Onwuegbuzie and Leech, 2006, p.474)

One of the benefits of using mixed methods is being able to be flexible and follow where the data takes you, which is ideal for Grounded Theory. By combining methods, you can gain both greater internal validity through qualitative methods and greater external validity through quantitative methods. One can reach a balance of being able to use controlled environments with replicable measures in the quantitative methods whilst being able to gain a knowledge of the context, its meaning and the relationships in the qualitative research (Yardley and Bishop, 2009).

A mixed methods approach is beneficial for this research as the qualitative data adds meaning to the quantitative data and helps to understand and

explain the data more fully and provide a deeper understanding (Bryman, 2006; Bryman 2008; Illing, 2007).

Individual methods for each phase of the study will be explained within each data chapter. However, a summary will be given for explanation under each phase of the study in this chapter.

2.6.2 Phase 1- Retrospective Observational Study Method

The overall aim of Phase One was to identify which specialty trainees have difficulty progressing through their annual review and reasons why over a five-year period (2009-2013).

To help achieve the aim of this scoping exercise the following methods were adopted:

1. Meetings with key members of staff at Health Education England regional office to investigate what data and information was held about trainees who have had extended periods of training.
2. Analysis of retrospective observation of data held by HEE regional office on doctors in training who had received adverse ARCP outcomes during their training.

2.6.2.1 Database Information

Data was interrogated in one HEE regional office to establish if there were any patterns or characteristics such as gender, age, ethnicity, or country of medical school qualification, which related to trainees receiving adverse ARCP/RITA outcomes. Analysis also attempted to explore why an adverse

ARCP/RITA outcome was received. A trainee could receive an adverse outcome for a single reason or for multiple reasons (see Chapter 3, Table 3 for a list of reasons). An in-depth description will be given in Chapter 3 detailing the method and analysis undertaken in Phase One of the research.

2.6.3 Phase 2 – literature review

A systematic literature review was undertaken to examine the literature and identify the indicators that are associated with doctors who are experiencing difficulties with progressing during their postgraduate medical training. A full overview of methods used in Phase Two will be outlined in Chapter 4.

2.6.4 Phase 3 – Qualitative interviews with trainees and trainers

The aim of Phase Three was to identify trainer and trainee perceptions of the barriers and enablers to progressing through specialty training using a Constructivist Grounded Theory approach. A more in-depth methods overview will be given in Chapter 5.

2.6.4.1 Triangulation

The researcher can look at and combine different ways of looking at a phenomenon (Silverman, 2005). Triangulation occurred through interviewing both trainees and trainers and by using different methods through interrogating the training data in Phase One (see Chapter 3) and also through use of a systematic literature review in Phase Two (see Chapter 4). The use of a mixed methods approach also helps with triangulation as it seeks convergence or corroboration of results across quantitative and

qualitative methods (Yardley and Bishop, 2009). A mixed methods approach was used within this research.

The constant comparison method used in grounded theory can also aid with research rigour and trustworthiness because the researcher is seeking to look at data from other sources, compare, and contrast that data. This research used a constructivist Grounded Theory approach and data and themes were compared to ensure that the findings were grounded in the data.

During this research, findings have been presented at several local, national and international medical education conferences and research discussions, and the findings have been discussed and supported with practitioners and medical educationalists. Despite the diversity in medical education and health systems globally, there were some similarities in the findings in other parts of the world when presented at international conferences. Having the opportunity to be able to present and discuss findings at various stages of my research enabled me to critically reflect on the findings and analysis and try to test out my theories and develop my ideas further. This was especially useful in Phase Three of my thesis.

Chapter 3 Phase one: Retrospective Observational

Data

3.1 Introduction

This chapter provides a summary of Phase One of the thesis, during which I aimed to familiarise myself with the topic area and key trends. The chapter summarises the Annual Review of Competence Progression (ARCP) panel process and presents data from a retrospective observation study of ARCP outcome data (from a five-year period) from one Health Education England (HEE) regional office. HEE are the national body who oversee the training and development of doctors and other healthcare workers to ensure that the workforce have the right skills, values and behaviours at the right time and place (HEE). The overall aim of Phase One was to identify which specialty trainees have difficulty progressing through their annual review and the reported reasons for this.

This research is placed within Postgraduate medical training (Specialty training) in the diagram below. This is the four to six years (depending upon Specialty choice) of Postgraduate training, following the two Foundation years, where trainees specialise prior to them becoming a specialty consultant.

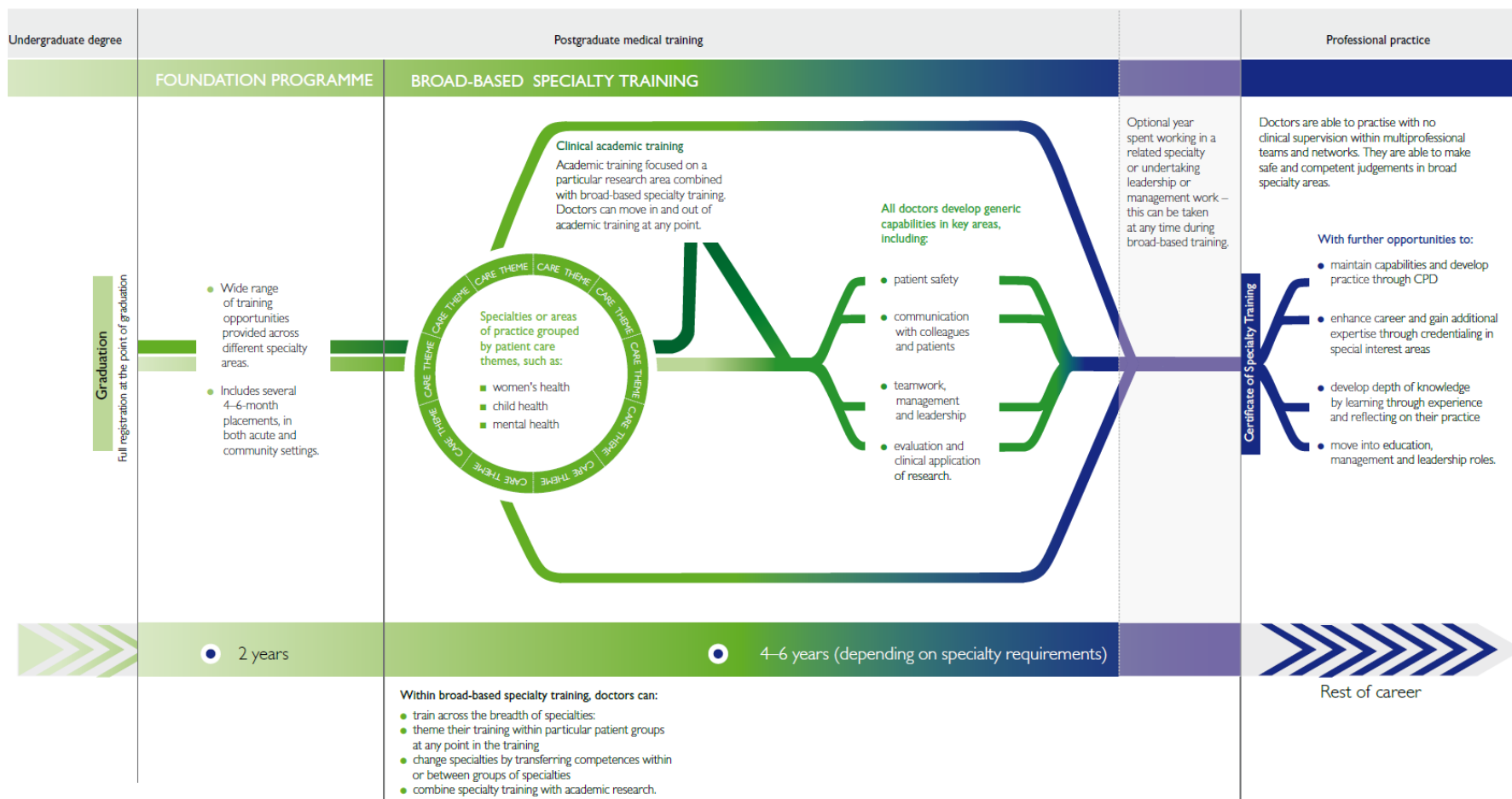


Diagram 1: to show the medical education pathway in the UK (Greenaway, 2013)

3.1.1 Annual Review of Competence Progression (ARCP)

To demonstrate that trainees are sufficiently competent to progress to their next level of training they are required to provide evidence to a panel to be assessed. It is also used as evidence for a trainee's revalidation.

Postgraduate Deans act as the Responsible Officer in the case of trainees. Trainees must be revalidated every five years, which is the same timespan as a consultant (Black, 2013).

ARCP panels represent a formal process that all trainees (Foundation Programme trainees, Core Specialty trainees and Specialty trainees, including GPs) must go through. Prior to 1 August 2007 trainee doctors were assessed by the Record of In-Training Assessment (RITA) and those who started on or after 1 August 2007 are assessed by an ARCP panel (DH gold guide, 2007) ARCP panels usually take place annually but may be more frequent if required. For example, if there are performance issues, trainees must demonstrate to the ARCP panel that they are developing at the correct rate and are competent to progress to the next level of their training, and they must collect evidence to show progression. Evidence is based on meeting the requirements of the Specialty Royal College curriculum and is collated in an e-portfolio. Evidence collected may include: Workplace based assessments and feedback, and reflective practice such as mini-pat and case based discussions (CBD).

The possible outcomes a trainee will obtain from an ARCP or RITA panel are outlined in the table below.

Table3: ARCP and RITA outcomes

ARCP Outcome	Description
1	Satisfactory progress. Competences achieved as expected.
2 (Specialty only)	May progress but requires specific/targeted training to achieve certain competences.
3	Has not achieved competencies required to progress, up to 12 months (6 months GP and Core) additional training required.
4	Released from training programme with or without specified competences
5	Incomplete evidence presented.
6	Gained all required competences; will be recommended as having completed the training programme and for award of a CCT, CCST or CESR/CEGPR
7	Outcome 7 - Outcome for Fixed-term Specialty Trainees (FTSTAs) and Trainees in LAT appointments. Trainees can receive the following: 7.1 - Satisfactory progress in or completion of the LAT / FTSTA placement. 7.2 - Development of Specific Competences Required – additional training time not required 7.3 -Inadequate Progress by the Trainee 7.4-Incomplete Evidence Presented
8	Out of Programme for research approved clinical training or a career break (OOPR/OOPE/OOPC)
RITA outcomes	
C	Satisfactory progress. Competencies achieved as expected.
D	May progress but requires specific targeted/training to achieve certain competencies.
E	Has not achieved competencies required to progress, up to 12 months (6 months in Core and GP) additional training required.
F	Out of Programme, time may or may not count towards training.
G	Recommendation for completion of training having gained all required competencies.

Adapted from Gold Guide February 2016, p.9.

There are several reasons why trainees are given an adverse outcome. A single reason or a combination of two or more may be given at one ARCP panel. Table 4 presents the range of reasons given to a trainee receiving an adverse ARCP outcome. Not all reasons are the fault of the trainee or their performance. It may be that the training post did not provide adequate training (U2) or the trainer may have been absent (U4). There is a code for 'other' (U8) and this may be used for any other reason, such as ill-health.

Table 4: 'U Codes' used by HEE as reasons for giving a trainee an adverse (unsatisfactory) ARCP outcome

U code	Reason for unsatisfactory outcome	Explanatory notes
U1	Record Keeping and Evidence	Trainee failed to satisfactorily maintain their Royal College/Faculty E-portfolio including completing the recommended number of work place Based Reviews; Audits, Research; structured Educational Supervisors report; in accordance with recommendations for that particular year of training in line with Royal College/Faculty curriculum requirements.
U2	Inadequate Experience	Training post(s) did not provide the appropriate experience for the year of training being assessed in order to progress. As a result, the trainee was unable to satisfy the Royal College/Faculty curriculum requirements for that year of training.
U3	No Engagement with Supervisor	Trainee failed to engage with the assigned Educational Supervisor or the training curriculum in accordance with the Royal College/Faculty requirements for that particular year.
U4	Trainer Absence	Nominated Educational Supervisor or Trainer did not provide the appropriate training and support to the trainee because of their absence or sabbatical; through illness or other reasons. Insurance of appropriate training level was not maintained. As a result, the trainee was unable to satisfy the Royal College/Faculty curriculum requirements for the year of training.
U5	Single Exam Failure	Trainee failed to satisfy the respective Royal College/Faculty examination requirements to progress to the next year of training.
U6	Continual Exam Failure	Trainee failed to pass the respective Royal College/Faculty examination within the allowable number of examination attempts following a number of re-sits and is therefore unable to progress any further in this specialty.
U7	Trainee requires Deanery support	Trainee has issues to do with their professional personal skills for example: behaviour, conduct, attitude, confidence, time keeping, communication skills etc. and requires the support of the Deanery Performance Team.
U8	Other reason (please specify)	

(Adapted from Gold Guide February, 2016 pp.99-100.)

3.2 Method

Phase One objective: to identify which specialty trainees have difficulty progressing through their annual review and the reasons why.

To help achieve the objective of this scoping exercise the following methods were adopted:

3. Meetings with key members of staff at HEE regional office to investigate what data and information was held about trainees who have had extended periods of training and the reasons.
4. Retrospective observational study. Access to existing HEE regional office data to help identify which trainees have extended periods of training.

3.2.1 Data Collection

3.2.1.1 Information Gathering

Introductory meetings with key staff at HEE regional office were arranged to explain the nature of the project and to request assistance with data collection. Several HEE regional office staff members were involved in this project, facilitating access to data, assisting with data collection and sharing insight into issues relating to this phase of the research.

3.2.1.2 Ethics

Ethical approval was successfully sought through the Durham University School of Medicine, Pharmacy and Health ethics subcommittee (appendix 2). A National Research Ethics Service (NRES) review was not required for this

research as it did not require the participation of patients. However, the researcher was required to hold a Disclosure and Barring Service (DBS) check and a Confidentiality Agreement was put in place between the regional HEE office and Durham University, signed by both parties to allow access to anonymised data.

3.2.1.3 Database information

Data from a five-year period were interrogated in one HEE regional office to establish if there were any patterns associated with characteristics such as gender, age and country of medical school qualification, which related to trainees receiving adverse ARCP or Record of In Training Assessment (RITA) outcomes (see Table 3) which presents the range of outcomes a trainee may receive in their ARCP or RITA). Analyses also explored why an adverse ARCP outcome was received. A trainee could receive an adverse outcome for a single reason or for multiple reasons. A list of 'U codes' - reasons for receiving an adverse outcome - are outlined in table 4.

Anonymised data were taken from one HEE regional office's ARCP/RITA outcome database for the five-year period from August 2009 to August 2013 on all trainees within that HEE regional office who were training within that period. Trainees were Foundation Programme doctors, Specialty doctors (including Core trainees and General Practitioners) in one geographical training region.

3.2.2 Data Cleaning and Analysis

Data was extracted in the form of three Excel spreadsheets covering post history, staff details and assessment details. The Excel spreadsheets were password protected and anonymised of any identifiable data.

The data required extensive cleaning before the analysis of the data could begin. In particular it needed to be transformed so that each row represented the multiple ARCP results of one individual. Advice and help was sought from a quantitative expert from Durham University to ensure that this process was undertaken correctly.

Individuals in three spreadsheets had a unique person identifier, which could be matched up across the three spreadsheets to enable merging into one spreadsheet. There were multiple entries for each trainee on the assessment and post history spreadsheets to accommodate the number of posts held and RITA/ARCP assessments carried out by the trainees (n=85,000 records in total). The three Excel spreadsheets were transferred into an Access database and a table of all individual records was merged using the unique identifiers with the assessment records and post history with assessment records.

The data was cleaned and re-coded before analysis could begin. If there was a blank in a field, then '*Not Stated*' was assigned to that field. To overcome the changes between the previous annual appraisal systems – RITA, which some trainees were still using, the RITA outcomes were mapped onto the ARCP outcomes for ease of analysis (RITA and ARCP codes did not map directly onto each other). Therefore, in the outcomes field a RITA D or E outcome were replaced with an ARCP outcome three/four (fail) (Gold Guide,

2016) See table 3 above for a breakdown of ARCP and RITA outcomes). At the start of this thesis I was interested in trainees having to extend their training. Therefore, the focus of the scoping exercise included outcomes three (extended training) and four (leave the training programme). However, the focus of the study was later broadened to include trainees who received an outcome two (targeted training), and these trainees were interviewed in Phase Three of this thesis. The data was then transferred from Access back into Excel for further data cleaning. Data was then re-coded again for ease of analysis.

There were several variables on the database which were excluded in the analysis because much of the data was missing. These were: ethnicity, specialty, grade, whether they were full time or less than full time. In addition, trainees had received more than one ARCP outcome over the five year period that data was analysed but the dependent variable (pass/fail) is based upon the last ARCP outcome the individual trainee had received.

The effect of trainee age was explored in the scoping exercise, however there is no accepted standard definition of young and mature medical student (Pyne and Shlomo, 2015). The following age categories were selected and the data was re-coded into three age categories: 20-30, 31-40, 41-plus, which ensured sufficient numbers per cell for the chi square analyses. Age was treated as a continuous variable for the logistic regression analysis. Country of medical school graduation was also re-coded so that there were three main categories: UK, EU and IMG, for ease of analysis and to ensure the data was non-identifiable. Due to the small numbers, EU and IMG data were collapsed for logistic regression modelling.

Data was analysed using Excel, R and SPSSv23 using a combination of descriptive statistics (*percentages and frequencies*) and inferential statistics (*chi square, binary logistic regression*). Help and advice were sought for the logistic regression modelling from colleagues.

3.3 Results

3.3.1 Overall characteristics of the sample

From the 5042 trainees in the sample the majority (n=4452, 88.3 %) had received a positive outcome to enable them to progress on to the next stage of their training or in their career. Two hundred and seventy-seven trainees (5.5%) were out of programme (OOP) and 255 (5.1%) had received an adverse outcome (3 & 4), which meant that they had either been given a period of extended training (outcome 3) or were asked to leave the training programme (outcome 4). Fifty-eight trainees (1.2%) could not be categorised. Of these, 51 were awarded an ambiguous grade (unsatisfactory), five were awarded outcomes for two parts of their training programme (e.g. if they were doing clinical and academic posts. However there was no way of knowing which grade was relevant for which post) and two were not stated. These groups were removed from the sample. Figure 1 presents a further breakdown of the sample.

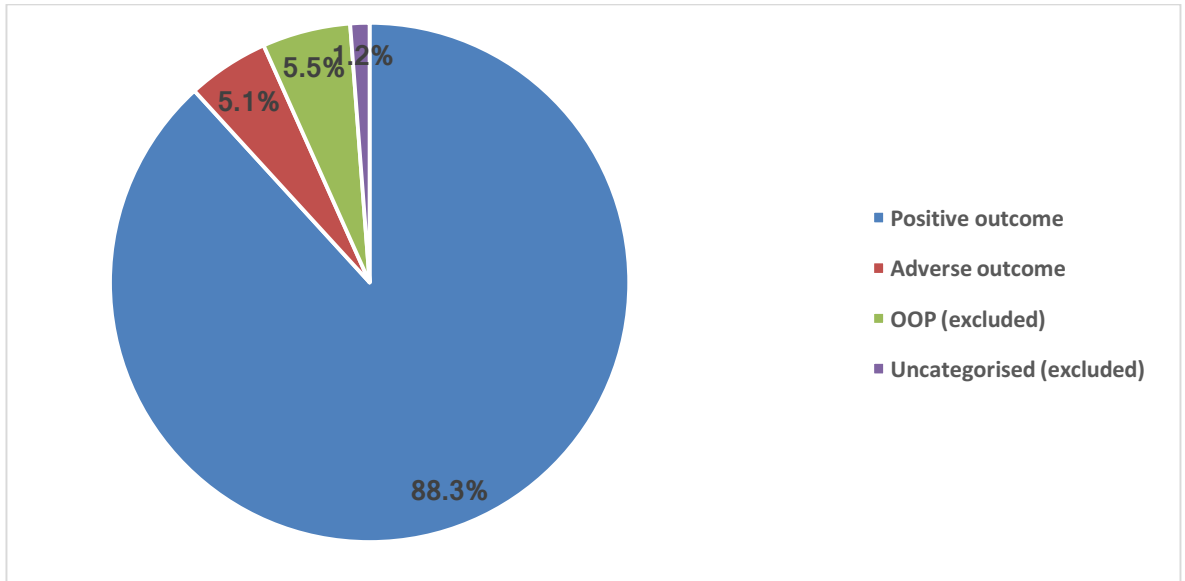


Figure 1: Breakdown of total sample (n=5042)

The following analyses were based on pass and fail outcomes. Pass refers to ARCP 1 and fail refers to ARCP 3 (extended training) and 4 (leave the training programme).

3.3.2 Gender and ARCP outcome

Cross tabulation of gender by outcome (pass/fail) found that 92 (3.8%) of females failed their last ARCP panel and 163 (7.1%) of males failed. A chi-square test was performed to examine the relationship between gender and ARCP outcome and a significant association was found: $\chi^2(1, N = 4707) = 25.096, p < .001$. Examination of figure 2 suggests that male trainees are more likely to fail than female trainees.

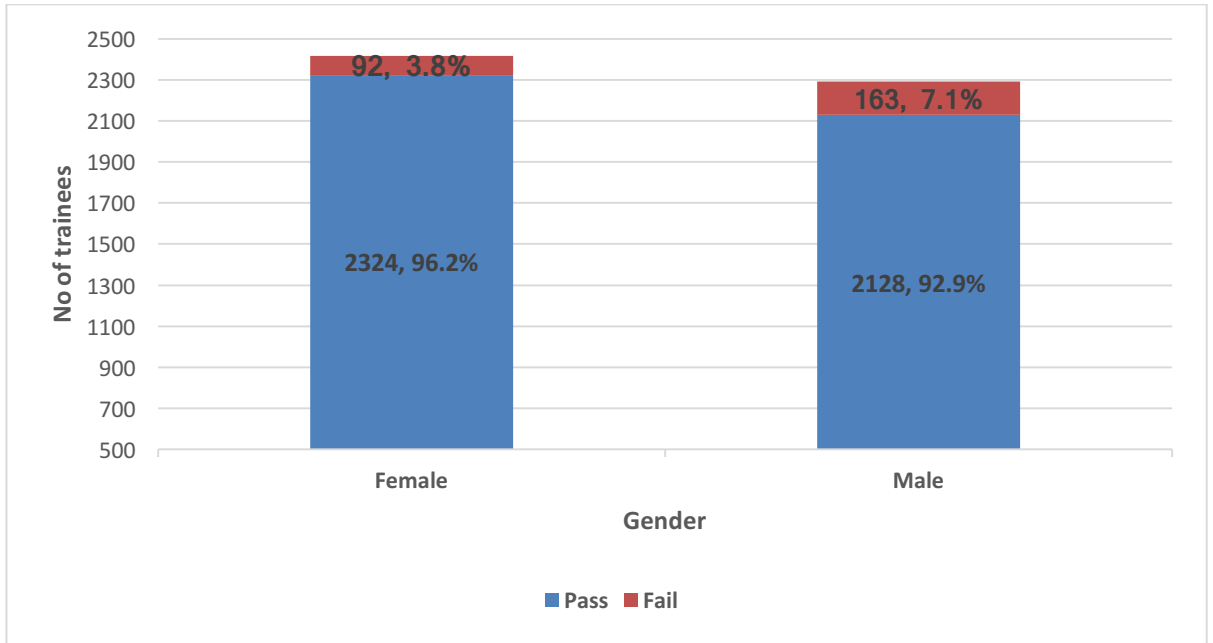


Figure 2: Frequency of trainees by gender and ARCP outcome

3.3.3 Age by ARCP outcome

The relationship between age and ARCP outcome was examined (see figure 3). Age was categorised into three groups (20-30, 31-40 and 41 plus).

Failure rates in these age categories appeared to show an upward trend: 20-30 year olds n= 85 (3.5%), 31-40 year olds n = 134 (6.7%), 41 plus n = 36 (14.6%). A chi square test was performed and a significant association between ARCP outcome and age was found, $\chi^2 (2, N =4658) = 64.310, p < .001$.

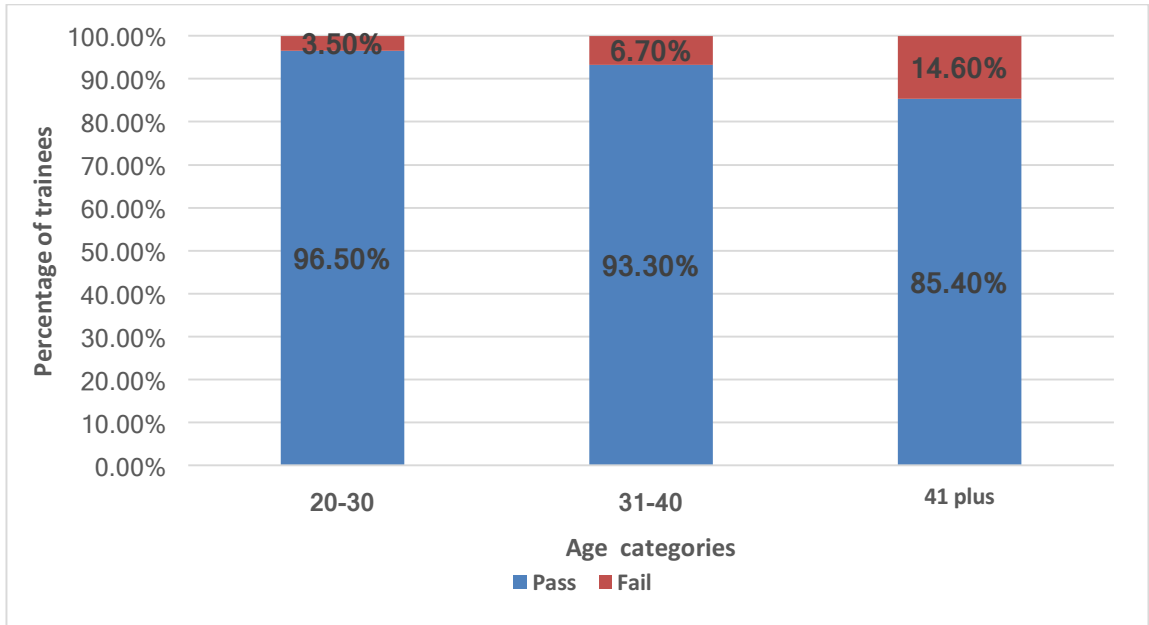


Figure 3: Percentage of trainees by age category and ARCP outcome

3.3.4 Country of graduation and ARCP outcome

Of the 3358 UK trainees in this sample, 121 (3.6%) failed (ARCP outcome 3 or 4) and 3237 (96.4%) passed. Of the 196 EU trainees, 16 (8.2%) failed and 180 (91.8%) passed. Finally, of the 1096 International Medical Graduates (IMGs), 115 (10.5%) failed their ARCP, and 981 (89.5%) passed. A chi square test was performed and a significant association was found between ARCP outcome and country of graduation $\chi^2(2, N=4650) = 79.521, p < .001$, (see figure 4).

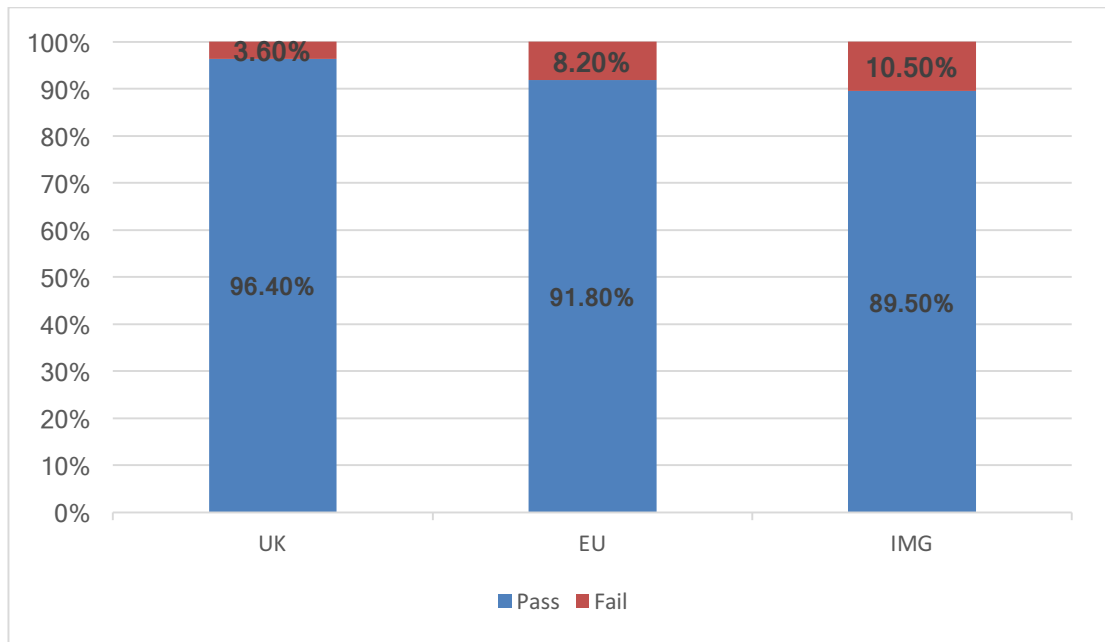


Figure 4: Country of graduation by ARCP pass/fail outcome

3.3.5 Binary Logistic Regression

In order to understand the relationship between trainee age (as a continuous variable), gender (male, female), and country of graduation (UK, IMG/EU) with ARCP outcome (pass/fail), and to test for interactions, these variables were entered into a logistic regression model in R. Models were compared to establish the best fitting model, before examining individual predictors.

Improvements in model fit were assessed using differences in residual deviance (lower deviance is an indicator of better model fit) and the Akaike Information Criterion (AIC; ordinal values which act as a relative measure of model quality based on goodness of fit and model complexity, where lower values indicate higher model quality).

Initially, a 'null' model including just the intercept was created for comparison purposes, without predictors, in order to test the improvement in model fit

with the addition of predictors (AIC = 1957.3). A 'basic' model was created with the three main predictors (country of graduation, gender, age) but no interactions. Model fit was significantly improved in the basic model compared to the null model (difference in residual deviance = 116.2 on $df=3$, $p<.0001$; AIC=1847.1). The basic model was then compared to an 'interaction' model including the three predictors (age, gender, country of graduation), all two-way interactions (age*gender, age*country, gender*country), and a three-way interaction (age*gender*country). Model fit for the basic model was not significantly improved with the addition of all interactions, (difference in residual deviance = -2.4 on $df=-4$, $p=0.66$, AIC=1852.7), nor was it improved with the addition of only the two-way interactions (difference in residual deviance = -2.4 on $df=-3$, $p=0.50$, AIC = 1850.7), therefore the basic model with three predictors (country of graduation, gender, age) was retained.

Logistic regression results for individual predictors indicated that trainee age, gender and country of graduation significantly predicted ARCP outcome, controlling for the effect of the other variables (for example, age was a significant predictor, controlling for the effect of gender and country of graduation). The effect of country of graduation was significant (Wald=20.36, $df=1$, $p<.001$), and odds ratios indicated that overseas graduates were almost twice as likely to fail the ARCP compared to UK graduates (OR=1.95, 95% CI=1.46-2.60). The effect of gender was also significant (Wald=11.95, $df=1$, $p=.001$), and odds ratios indicated that male trainees were 1.61 times more likely to fail the ARCP than female trainees (OR=1.61, 95% CI=1.23-2.11). Finally, age was a significant predictor (Wald=32.68, $df=1$, $p<.001$),

and odds ratios found that for each additional year of age, an individual is 1.07 times more likely to fail ARCP (OR=1.07, CI=1.05-1.10). Figure 5 presents the predicted probabilities of failing ARCP by age, gender and country of graduation. It shows the increased probability of failure for older trainees, overseas graduates and male trainees.

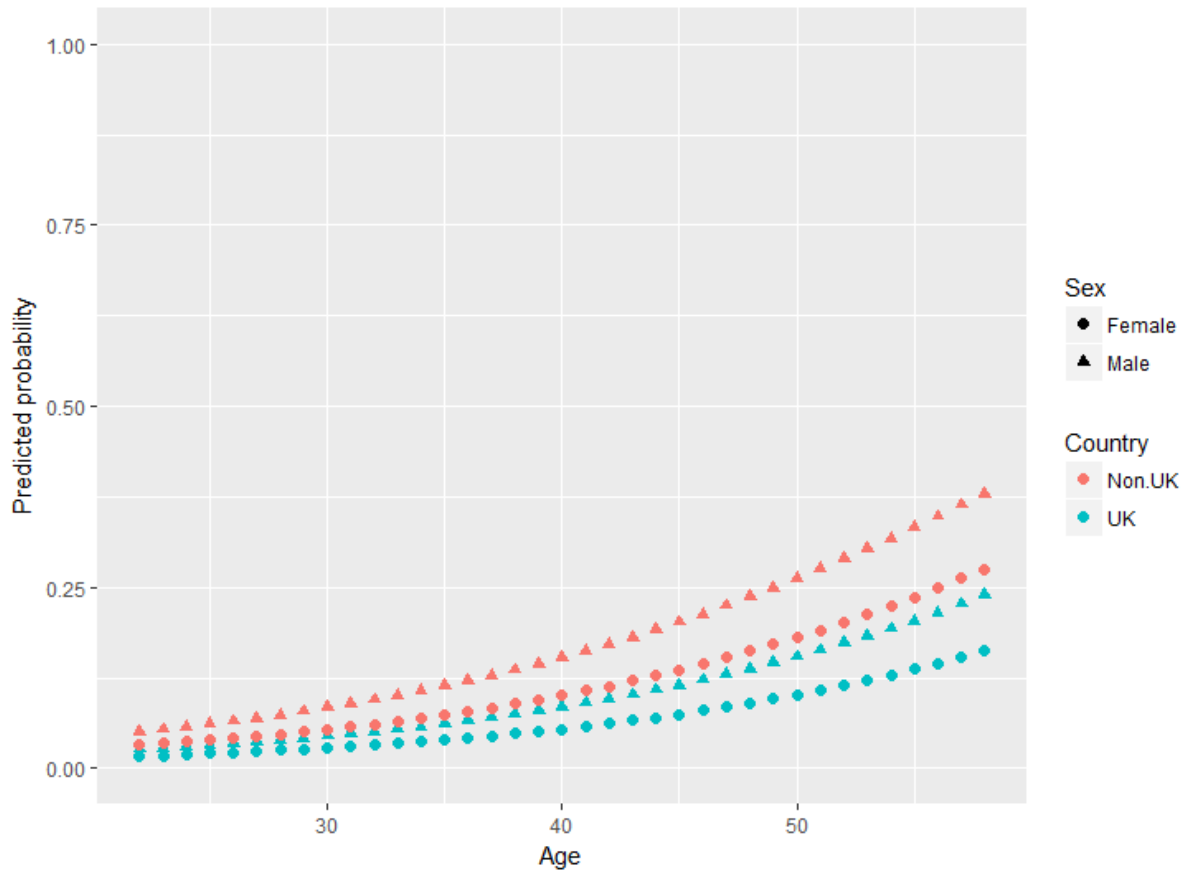


Figure 5: Predicted probabilities of failing ARCP by age, gender and country of graduation

3.3.6 Reasons cited for adverse ARCP outcomes

Common reasons given to explain why trainees had received an adverse outcome were identified. Some reasons were used only once, and these were grouped under 'other'. The most common single reason given for failing an ARCP was '*Record keeping and evidence*'. However, trainees also received multiple reasons within this category. '*Record keeping and evidence*' plus '*inadequate engagement with supervisor*', '*single exam failure*', '*inadequate experience*', or '*continual exam failure*' were the reasons most commonly cited for a trainee receiving extended training. Table 5 shows the single and multiple reasons why trainees were given an adverse outcome. Reasons were broken down by country of graduation and gender. Multiple reasons have been collapsed to aid analysis as the numbers were very small for individual multiple reasons.

Results show that in UK and IMG graduates '*Record keeping and evidence*' was the most frequent single reason for failing or a combination of '*Record keeping and evidence*' and one or two other reasons. Table 5 shows the frequency of single and multiple reasons for failure by age group and gender.

Table 5: Frequency of single and multiple reasons for adverse ARCP outcomes by country of graduation, age group and gender.

Single or multiple reasons	Reasons why failed	UK graduated N=121		EU graduated N=16		IMG graduated N=115	
		Males (N=66)	Females (N=55)	Males (N=10)	Females (N=6)	Males (N=85)	Females (N=30)
Single reasons why failed	Inadequate Engagement with supervisor	0	1	0	0	0	0
	Inadequate Experience	7	0	0	1	3	1
	Record keeping and evidence	20	12	1	0	25	13
	Single exam failure	4	14	1	1	7	3
	Continual exam failure	6	5	0	1	8	2
	Trainee requires support	1	0	0	0	1	0
	Other Reason	2	1	0	0	7	1
	Reason not given	14	8	2	2	8	4
	Multiple reasons why failed	Inadequate Engagement with supervisor & at least one other reason	1	1	0	1	0
Record keeping & evidence & at least one other reason		11	13	6	1	26	6

3.4 Limitations of the data

There were a number of issues with this dataset, described below. Some related to the quality and reliability of the data, others to the lack of availability of important additional data, which may have provided further insight into the reasons for adverse outcomes. Given these findings, results should be regarded as indicative. However, the qualitative analysis of interview data (described in Chapters 6 and 7) provided considerably greater depth of understanding of the reasons for adverse outcomes.

- There were some missing data within the spreadsheet. This could be due to different staff from different organisations inputting the data. For example, Trusts are responsible for inputting the data about Foundation trainee doctors whereas Specialty co-ordinators and GP co-ordinators are responsible for inputting data for Specialty and GP trainees. Therefore, consistency of data input codes were very hard to manage and enforce, making interpretation somewhat unreliable.
- Data codes have historically been interpreted in different ways and the Orange (RITAs) and Gold (ARCPs) guides may have been interpreted in different ways.
- There were problems with the data not capturing the underlying issues relating to trainees having difficulties.
- The 'U codes' for the ARCP/RITA outcomes do provide a full explanation for adverse outcomes. For example, 'Other' could mean sickness but no further information is given.
- There was no information or very limited information on the majority of the protected characteristics of trainees such as: disability, gender reassignment,

marriage and civil partnership, religion and belief, sexual orientation. This is not mandatory to complete.

- Electronic portfolios or paper portfolios could not be accessed as this posed ethical issues. The portfolio and training plans are between the trainee and the trainer. Therefore, this information is not held by HEE regional office. These would have helped to gain more insight into why a period of extended training was required. A further phase of the research explored the issues and reasons why trainees have received an adverse outcome in more depth through interviews.
- International English Language Testing System (IELTS) and the Professional Linguistic Assessment Board (PLAB) results are not available to access from HEE regional office or from the GP National Recruitment Office. They only hold scores on whether trainees have passed to an acceptable standard. PLAB scores are not eligibility criteria which is why they do not hold the data. Specific information on what each trainee scored in their IELTS and PLAB exams and the number of times that they sat the exam/s would have been highly informative information to obtain. This information could have been run against the trainees who had extended periods of training to see if there were any patterns emerging.
- The data offers only a snapshot of trainees within a certain timeframe.

3.5 Limitations of the study

At the start of this thesis I was interested in trainees having to extend their training. Therefore, this dataset includes only outcome 3 (extended training) and outcome 4 (leave the training programme) as these were the focus of the study at the time of looking at this data. However, research in Phase Three looked at trainees who had received outcomes 2 and 3 for their ARCP and enabled a more in-depth exploration of indicators and risk factors. This was felt to be more valuable than further analysis of a limited dataset. Due to inconsistent and unreliable coding of ethnicity in the dataset this was not investigated. However other research (Woolf *et al.*, 2016) has identified that BME may be an indicator of differential attainment.

3.6 Conclusions

This chapter reports the results of a retrospective observation study of ARCP outcome data, with a focus on trainees who did not pass the ARCP and the reasons for adverse outcomes. The number of trainees who received an outcome three or four was small (n=255; 5%), and there are issues related to the quality of the dataset, described above. However, chi-square and logistic regression analyses did highlight some interesting results. Overall, male trainees were more likely to receive an adverse ARCP outcome than female trainees; trainees who graduated overseas were more likely to receive an outcome 3 or 4; and older trainees were also more likely to receive an adverse outcome.

The main reason recorded for receiving an adverse outcome was '*Record keeping and evidence*'. Reasons behind this data need to be explored in more depth to help understand the issues involved and what can be done to mitigate against them. The

following two phases of the project aim to explore and identify potential barriers and enablers to trainee doctors progressing in their specialty training.

Chapter 4 Systematic Literature Review Chapter

This chapter reports on a systematic literature review, which aims to examine the literature to identify indicators that are associated with doctors who are experiencing difficulties with progressing during their postgraduate medical training. The chapter outlines the methods used in the review process and summarises the literature reviewed. Findings have been summarised into seven indicators which are associated with trainees experiencing difficulties in postgraduate medical training.

4.1 Background

Specialty training is a crucial time for trainee doctors because they are developing their clinical skills and independence as a doctor whilst simultaneously providing patient care. However, as levels of responsibility and competency increase (Campbell, *et al.*, 2010) levels of stress also increase (Sargent *et al.*, 2004; Le Blanc *et al.*, 2009). Research shows that stress in a doctor can have negative effects (Le Blanc *et al.*, 2009; Taylor *et al.*, 2008) on memory loss and attention and decision making, which can impact on patient care (Le Blanc *et al.*, 2009) and impact on a trainee's career and health (Shanafelt, *et al.*, 2002 and Mitchell *et al.*, 2005).

Underperformance in doctors can be related to issues in the training environment, for example not receiving enough training or not having enough clinical knowledge. It could also be linked to other indicators, such as stress or burnout. Burnout consists of three factors: emotional exhaustion, depersonalisation and lack of personal accomplishment (Maslach, 1981). Factors which can impact on a doctor experiencing difficulties are complex and are not solely related to their ability, but may also be related to a trainee's personality, their motivation, the organisational

environment they work in, social issues or the health and well-being of the doctor (Cohen and Rydderch, 2006; Cozens and Payne, 2006; Harrison, 2006; Firth-Cozens and King, 2011). The way in which underperformance in doctors is managed is challenging for managers, and for those employing and training them (Cohen *et al.*, 2007).

Despite underperformance of doctors being an important area, there is a dearth of literature on characteristics and indicators that identify doctors having difficulty in their postgraduate training. This may be in part due to the heterogeneity of the issues. This systematic review seeks to examine the literature and identify the indicators that are associated with doctors who are experiencing difficulties with progressing during their postgraduate medical training. In doing so, it will help with understanding who is experiencing difficulties and why they are experiencing them.

4.2 Method

The aim was to conduct a review of the literature to investigate whether there are indicators associated with trainee doctors who have experienced difficulties in their postgraduate medical training.

4.2.1 The search process

Papers were identified in a systematic way by searching MEDLINE and EMBASE databases. There were several restrictions put on the databases when doing the initial search. These included: use of English language only, and having been published since 2000 (this date was chosen because of policy changes in medical education at that time). Articles were searched between January 2000 and August 2013. Articles were also identified through hand searches and references identified in

reference lists of reviewed articles. See Table 6 for a detailed search strategy. A combination of UK and US terms were used in the search strategy.

Table 6: Literature search strategy

Population		Type of training/education		Issue
Doctor* (explode) OR	+	Specialty OR	+	Extended OR
Physician*(explode)OR		Registrar OR		Underperform* under-perform* OR
Surgeon		GP*, General Practitioner*, family physician* OR		Additional training OR
		Internship/residency (explode) OR		Support* OR
		Medical education/training OR		Remedi* OR
		Foundation Programme		Difficult* OR
				Strugg* OR
				Extend*

The review was exploratory in nature so as not to bias the review by searching for pre-determined characteristics, for example overseas doctors, gender, age were not used in the search terms.

4.2.2 Inclusion/Exclusion Criteria

Articles were initially searched by title using exclusion/inclusion criteria (see table 7). This was to ascertain whether the articles were relevant initially by title. Selection bias within the literature review was also reduced by using the inclusion/exclusion criteria (Booth *et al.*, 2012). Articles were excluded if they were related to undergraduate (as the focus of the study was on postgraduate trainees) or were related to health professions other than doctors because the training of other

healthcare professionals is not the same as doctors' training and therefore stressors are likely to be different.

Table 7: Inclusion/Exclusion Criteria

<p>INCLUSION CRITERIA</p> <ol style="list-style-type: none">1. Papers about underperforming doctors (including postgraduate trainee doctors)2. Papers about trainee doctors who have additional training (including but not exclusive to: reasons of ill health, performance issues, maternity, study leave)3. Papers containing characteristics, indicators or risk factors of doctors who experience or have the potential to experience difficulties during their training or later in their careers4. Papers published between the years Jan 2000 to Aug 20135. English language papers only6. Papers about postgraduate doctors7. International studies8. Journal articles, reviews and systematic reviews only9. Academic publications <p>EXCLUSION CRITERIA</p> <ol style="list-style-type: none">1. Papers that are not about doctors2. Papers that are opinion based rather than evidence based3. Papers not written in the English language4. Papers about undergraduate medical training5. Newspaper articles, commentaries and letters6. Papers published before the year 2000

4.2.3 Review process of articles

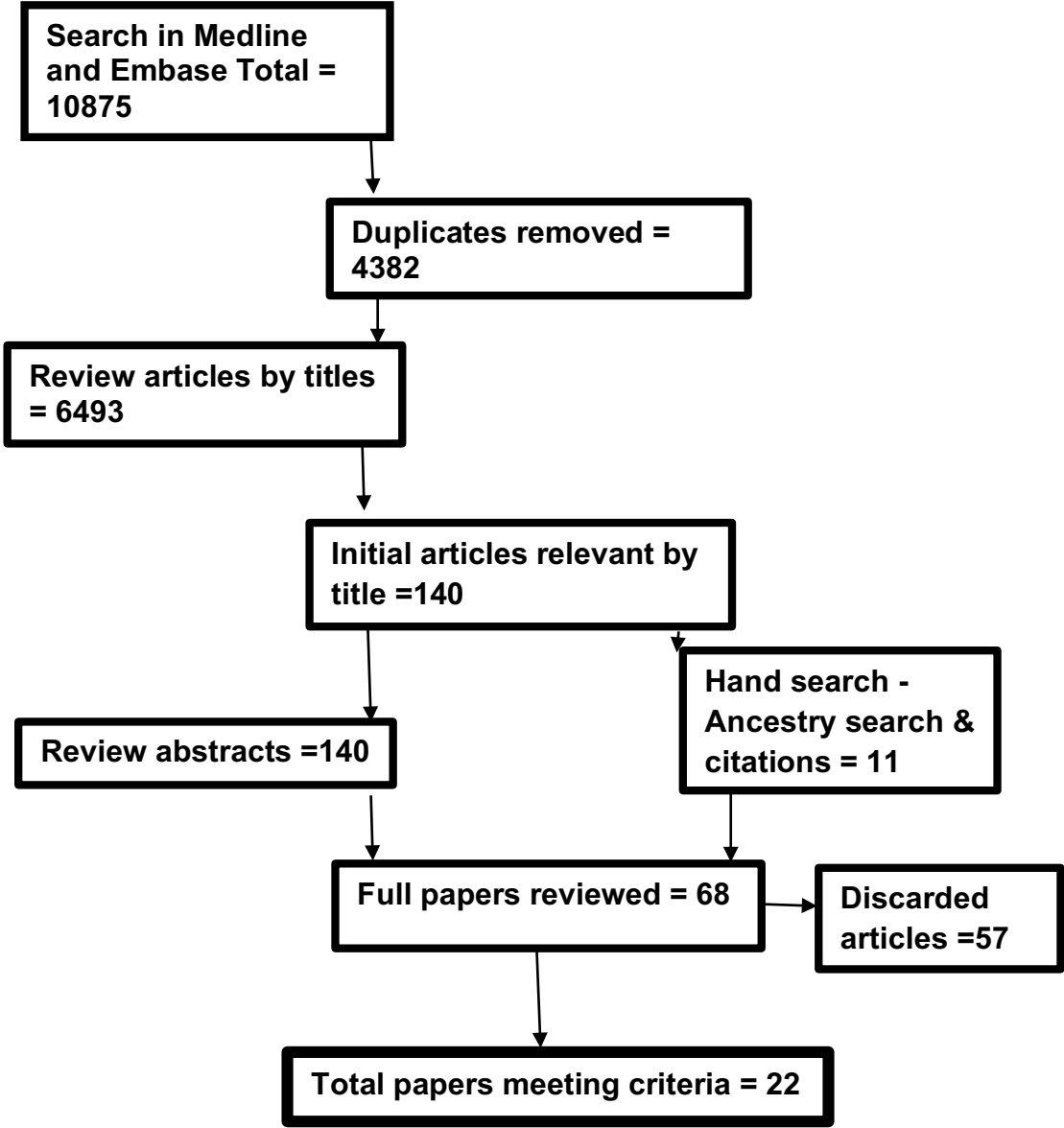
The search strategy flow diagram is outlined in diagram 2. The initial search yielded 10875 articles. Once titles had been read and sorted by relevance (140) papers were included. Their abstracts were then imported from the database into Endnote (a bibliographical data management software tool). Abstracts were imported into Endnote to aid with the management of storing and searching many articles. The abstracts were then read, and excluded if they did not fit with the exclusion/inclusion criteria (see table 7) (n=72).

Full articles were then retrieved and attached to Endnote, again for ease of collating, storing and organising articles. Full articles (n=68) were read once to assess whether they were relevant using the inclusion/exclusion criteria. Fifty-seven articles were disregarded as they were not relevant due to being specifically about undergraduate studies, relating to interventions only, providing no information about characteristics or risk factors and being patient focused rather than doctor focused. However, these papers were used as background reading and contained useful references. There were 18 remaining papers. In addition, eleven further articles were retrieved and reviewed, which were found through citations of articles, through references from articles and were included or excluded in the reviewed articles by hand searches¹ and ancestry searches²(Haig and Dozier, 2003). Twenty-two articles in total were reviewed fully, re-read with an eye to quality and categorised.

¹ Hand searching - is literally the searching of print (or electronic) journals volume by volume, issue by issue, and article by article. (Haig A and Dozier M. BEME Guide No 3: Systematic searching for evidence in medical education—Part 1: Sources of information. *Medical Teacher* July 2003; 25(4):352–363).

² Ancestry searching - is the process of searching the bibliographies of relevant papers to discover references missed by other methods. (Haig A and Dozier M. BEME Guide No 3: Systematic searching for evidence in medical education—Part 1: Sources of information. *Medical Teacher* July 2003; 25(4):352–363).

Diagram 2: Search Strategy Flow Diagram



4.2.4 Assessing the evidence under review

As part of a systematic literature review, quality assessment is a standard procedure (Booth *et al*, 2012). Quality assessment refers to whether one can believe the study or the internal validity of the study being reviewed. In addition to quality assessment, external validity is also a consideration. This refers to whether a study is externally

valid or generalisable and applicable to answering 'is the study relevant to us?' (Booth *et al.*, 2012). Typically, internal validity is a consideration during the results section of a systematic literature review and external validity is considered during the discussion section (Booth *et al.*, 2012).

To ensure internal and external validity during this review there were clear inclusion and exclusion criteria to ensure relevance of the article to the review being undertaken. On several occasions, supervisors were asked their opinion on whether an article should be included. Once articles had been selected for full review, the articles were then assessed in more detail. The relevant information was then transferred into a matrix (see appendix 1: data extraction form), which extracted the following information for each article: 1) *author(s) and journal reference*, 2) *country and setting*, 3) *methodology, reliability and validity*, 4) *study aim*, 5) *results, characteristic, intervention*, 6) *conclusions* and 7) *limitations*.

When assessing the evidence Booth *et al.*, (2012) highlight three important factors to consider: 1) *applicability factors* (how important is the study to answer your question?), 2) *extrinsic factors* (external factors, your own preconceived ideas and biases, who wrote the article i.e. if they are known to you, the setting), 3) *intrinsic factors* (the appropriateness of study design, methods and sample). It is important to discard extrinsic factors during quality assessment of articles as this has potential to influence your opinion of the article. Quality assessment can help with identifying the heterogeneity of studies in your review. This can be helpful, for example, to assess whether a small study is overestimating its findings compared to a larger scale study (Booth *et al.*, 2012). However, when undertaking quality assessment in qualitative studies there are mixed views on how this should be done.

Key questions I considered when assessing the papers were whether there were any themes emerging from the articles, how credible the data was and how applicable the evidence was in the studies being reviewed. These all helped me to assess the quality of the articles being reviewed. In addition to the above questions I also used the following questions devised by Dixon-Woods *et al.*, (2006).

- Are the aims and objectives of the research clearly stated?
- Is the research design clearly explained and has appropriate aims and objectives (which have also been stated)?
- Is there a clear account of the process by which their findings have been produced?
- Do the researchers provide enough evidence to support their findings, interpretations and conclusions?
- Is the method appropriate and explained clearly?

(Cited from Booth *et al.*, 2012 pp114)

Furthermore, at each stage of the review supervisors were informed of the process and a discussion took place around the articles and the themes being generated from the review to help ensure further quality assessment.

4.3 Results

4.3.1 Characteristics of the literature

The majority of studies were conducted in North America or Canada (n=15). The remaining studies were carried out in the UK (n=5), Switzerland (n=1) and Taiwan (n=1). Several of the articles were review articles or a mix of review and primary data

collection (n=4). Most articles collected primary data and were quantitative and collected data using surveys or questionnaires (n=13) or using retrospective quantitative data such as exam or OSCE results (n=6); four were qualitative and used interviews or focus groups.

4.3.2 Data extraction and Analysis

Due to the heterogeneous nature of the subject area it was difficult to group and make comparisons across the papers as findings were diverse. However, there were a number of clear themes reported in the studies, which will be discussed in more detail further on in this chapter. The literature articles reviewed were based on both qualitative and quantitative data and have been reported qualitatively (Thomas, 2004). Therefore, it was deemed appropriate to analyse the literature using a thematic synthesis approach (Booth et al., 2012, Thomas and Harden, 2008). This is a useful approach when aiming to pull out common elements across the literature, which is often heterogeneous in nature, and is also useful when generating a hypothesis to explore further research (Lucas *et al.*, 2007).

Analysis consisted of four steps (see diagram 3): 1) reviewing of data to answer the research question, 2) the selection of articles using the inclusion/exclusion criteria and 3) an extraction matrix was devised and then populated. Themes clearly emerged from the articles and are outlined in table 8. The final step (4) was to synthesise and report the data under the themes. These are described below.



Diagram 3: shows the four stages of data analysis

4.3.3 Themes derived from a review of the literature

Seven main themes emerged from the reviewed articles on doctors who are more likely to experience difficulties during their postgraduate training. These were: being an International Medical Graduate (IMG) (including ethnicity), gender, age, personality traits, background, financial issues and organisational factors. If interventions were discussed in the articles they have been mapped onto the risk factors identified (see table 8).

Table 8: Themes that emerged from the articles

Indicator	Sub-theme: risk factor	Intervention suggested	Source (author)
IMG	Lower exam results	Better selection and recruitment targets. Better acculturation and induction programmes	Wakeford, 2012; MacLellan, 2010; Papadakis <i>et al.</i> , 2008; Esmail and Roberts, 2013; Mahajan, 2007
	PLAB standards need to be reviewed	No intervention	Wakeford, 2012
	Language & communication issues	Induction & social programmes to help acculturation. Language courses to help with acculturation and may help with exam results.	Wakeford, 2012; Yao and Wright, 2001; Zulla <i>et al.</i> , 2008; Atri <i>et al.</i> , 2001; Gozu <i>et al.</i> , 2009; Laidlaw <i>et al.</i> , 2006
	Social and cultural Transition	Mentoring and/or buddy schemes where IMGs and a graduate from the host country are working together.	Wakeford, 2012; Mahajan, 2007; Zulla <i>et al.</i> , 2008; Gozu <i>et al.</i> , 2009
	Professional & training integration	More feedback, which is culturally sensitive to consider cultural aspects i.e. may see it as threatening. Mentoring schemes and/or buddying schemes to help increase support.	Mahajan, 2007; Yao and Wright, 2001; Zulla <i>et al.</i> , 2008; Atri <i>et al.</i> , 2001, Gozu <i>et al.</i> , 2009; West <i>et al.</i> , 2011
	Ethnicity related to negative discrimination in exams.	No interventions	Esmail and Roberts, 2013
	Life stage (older, childcare issues, cultural roles/hierarchy within the household)	Some awareness by the supervisor of family circumstances/responsibilities outside work	Mahajan, 2007; Zulla <i>et al.</i> , 2008; Gozu <i>et al.</i> , 2009
Age	Older & further on in training (and had dependents and were married) more likely to experience	Some awareness by the supervisor of family circumstances outside work	Zulla <i>et al.</i> , 2008

	challenges in training.		
	Communication skills better in under 30 year olds.	No intervention	Laidlaw <i>et al.</i> , 2006
	Younger trainees have a higher tendency toward stress and burnout. Related to dissatisfaction with work-life balance and work intensity.	Maintaining good health along with the availability of family and friends contributes to better personal coping strategies	West <i>et al.</i> , 2011; Hyman, 2011; Buddeberg-Fischer <i>et al.</i> , 2008
Gender	Sexual orientation – issues related to disclosure (worried about stigma and discrimination) causing stress.	More open culture and more awareness raising so less discrimination and bullying.	Ridson <i>et al.</i> , 2000
	Females less satisfied with work-life balance.	Some awareness by the supervisor of family circumstances outside work.	West <i>et al.</i> , 2011; Mahajan, 2007; Yao and Wright, 2001
	Females better at communication skills	No intervention	Laidlaw <i>et al.</i> , 2006
	Males perceived higher stress levels	Early identification of work stressors and support should be put in place.	Sargent <i>et al.</i> , 2004; Bee-Horng <i>et al.</i> , 2010; Campbell <i>et al.</i> , 2010
	Males used disengagement coping strategies, whereas females more likely to use social support as coping strategy.	No intervention	Bee-Horng <i>et al.</i> , 2010
Males more likely to experience burnout (although one study found	Interventions during internship year could help reduce burnout and the potential long term effects. In addition, interventions to explain the importance of	Hyman, 2011; Campbell <i>et al.</i> , 2010; Bee-Horng <i>et al.</i> , 2010	

	females more likely to experience burnout)	good health and understanding the importance of social support.	
Personality Traits	Neuroticism & low conscientiousness Negative affectivity	Exploring their personal characteristics	Bee-Horng <i>et al.</i> , 2010
	Over commitment Alexithymic personality style predicted burnout	No intervention	Budderberg-Fisher <i>et al.</i> , 2008; Thomas, 2004
	Low hardiness (without involvement in daily activities sense of control over events and openness to change), poor self-esteem and the 'victim mentality'	No intervention	³² Hyman, 2011
	Influences on support from the team	No intervention	Thomas, 2004
	Psychiatric traits	No intervention	Sargent <i>et al.</i> , 2004
	Biopsychosocial issues	No intervention	Adshead, 2010
	Financial issues	Debt	Training in medical school on debt and finances (23)
Background	Psychological issues	No intervention	Bryson, 2009
	Lower social class	No intervention	Yates, 2010
Organisation	Unrealistic targets, type of specialty, shift and workload, lack of supportive training environment, expectations	No intervention	Wakeford, 2012; West <i>et al.</i> , 2011; Hyman, 2011; Thomas, 2004; Bee-Horng, 2010; Sargent <i>et al.</i> , 2004

4.3.4 Synthesis of themes (indicators) within the articles

4.3.4.1 International Medical Graduates (IMGs)

One of the largest themes to emerge from the data was doctors having graduated from medicine overseas. Several sub-themes emerged from the articles and these will be described below:

- **Exam Results**

Exam results were found to be lower in IMGs in several studies when compared with graduates from their host country i.e. the UK, USA or Canada (Wakeford, 2012; MacLellan, 2010; Papadakis *et al.*, 2006; Esmail and Roberts, 2013; Mahajan, 2007). A study by Wakeford (2012) looked at 397 applicants in one deanery (regional Health Education England office) with a pass or fail outcome in their selection test. IMGs were found to perform less well on selection tests within general practice than UK graduates (Wakeford, 2012). This was also found between the two groups (UK and IMGs) in Membership of the Royal College of General Practitioners (MRCGP) exams (both the Applied Knowledge Test (AKT) and in the Clinical Skills Assessment (CSA) parts). MacLellan (2010) reported retrospectively on the success of IMGs who were pursuing or had completed a Quebec residency training programme and examinations. The study highlighted that on pre-residency clinical exams the success rates of IMGs (56%) were below those of Canadian and American graduates (93.5%).

Esmail and Roberts (2013) looked at failure rates in MRCGP by ethnicity and national background. They also sought to identify factors associated with pass rates in the CSA exam. They looked at 5095 candidates between 2010 and 2012 who sat

the AKT and CSA components of the MRCGP. They found that Black and Minority Ethnic (BME) graduates were more likely to fail the CSA components of the MRCGP, and found that BME graduates were nearly four times more likely to fail the CSA at their first attempt than their white UK colleagues. BME IMGs were fifteen times more likely to fail the CSA at their first attempt than their white UK colleagues, whereas this was not the case after controlling for scores in the AKT, or for IMGs the pre-registration exams such as the International English Language Test (IELTs) or the Professional and Linguistic Assessment Board (PLAB). Esmail and Roberts (2013) attributed this to subjective bias due to racial discrimination (Esmail and Roberts, 2013). However, this explanation may be too simplistic and not account for cultural differences and lack of support in transferring to the UK workplace.

Papadakis *et al.*, (2008) in a retrospective study looked at whether performance measures during residency predicted the likelihood of future disciplinary actions against practising internists. Trainees who did not pass their initial attempt of their certification exam in internal medicine were less likely to recertify. The study found that there was a correlation between low performance on exams and IMGs. IMGs had a 9% reduction in numbers of subsequent disciplinary action compared to US/Canadian graduates, who had a 35% reduction. Better scores correlated with a lower likelihood of disciplinary actions (Papadakis *et al.*, 2008).

There were also issues identified around preparation for exams. For example, IMGs were less likely to be part of exam study groups formed by peers. Taking clinical exams too soon after starting work in the NHS was also found to contribute to exam failure (Mahajan, 2007).

Having good communication and language skills is a necessity for doctors regarding interacting with patients and healthcare teams. Several papers linked poor linguistic and communication skills to doctors in difficulty (Wakeford, 2012; Mahajan, 2007; Yao and Wright, 2001; Gozu *et al.*, 2009; Laidlaw *et al.*, 2006). One Canadian survey study (based on 87 respondents) (Zulla *et al.*, 2010) explored challenges IMGs encountered and found that there were different perspectives of what was challenging. For example, Programme Directors considered that communication, working relations and inter-professionalism were a challenging area on entry to residency training for IMGs, whereas IMGs themselves found learning about the system and values of the Canadian healthcare system challenging. This difference in perspectives is important to explore and helps identify where to target support. Each group was responding to the survey based on their perspective but these perspectives may be different.

- **The challenge of the Social and cultural transition**

Making a transition from working and living in one country to another should not be underestimated (Wakeford, 2012). IMGs have been trained in a very different training system and will have different healthcare experiences compared to UK graduates. Training and exam scores can highlight underlying difficulties (Wakeford, 2012). IMGs are often entering training at a different life stage than their UK counterparts, often with dependents to support; they may be older and have experience of practising as a doctor in their own country (Gozu *et al.*, 2009). Making this transition can be difficult, for example not knowing what to wear to work or what to wear in a social situation can be challenging. If trainees are not socialised into the culture and the NHS, this can lead to issues related to communication and teamwork (Mahajan, 2007). Cultural issues, for example different values, breakdown in communication,

around different expectations could also have an impact on a doctor's performance (Mahajan, 2007).

Atri *et al.*, 2001) looked at 108 psychiatric IMG residents across North America and explored social support and acculturation to predict their mental health. They found that if an IMG was immersed in the culture of the host country this was predictive of good mental health. In addition, being in a senior year of postgraduate training was also found to be a positive predictor of mental health; this could be attributed to being further on in their training and more familiar with the healthcare system, being less isolated and more integrated and acculturated (Atri *et al.*, 2001).

- **Professional & training integration**

Differences in perspectives between trainees and supervisors can potentially cause problems (Zulla *et al.*, 2010 & Broquet and Punwani, 2012). Zulla *et al.*, (2010) carried out a survey exploring challenges that overseas doctors encounter, from the perspective of IMGs and their programme directors. They found that there were differences in perceptions of what is challenging and difficult. These differences, if known, could help to target training and help to clear up potential misunderstandings. Broquet and Punwani (2012) made an interesting observation about the understanding of feedback. They stated that feedback is cultural and IMGs often have limited or no experience of receiving feedback and may view it as criticism. Teachers mistakenly view a lack of self-assessment as a reluctance to learn or self-reflect. Trainees may view feedback as critical rather than as something intended to support or help them to develop and improve.

Wakeford (2012) concludes in his article that IMGs perform worse on selection tests than UK graduates. He attributed this to IMGs having gone through different training

systems and having had different experiences culturally, linguistically and educationally but still being expected to achieve the same exam results in the same time-period as UK graduates. He notes that this is unrealistic and does not consider the diversity in applicants.

In a qualitative study (Mahajan, 2007) exploring factors that may influence the progress of doctors who come from the Indian subcontinent to train in Paediatrics in the UK, it was found that a fear of losing face made doctors more inclined to hide their mistakes or not accept their mistakes, making it more difficult to learn from lessons. Other issues identified were related to working relationships within multidisciplinary teams, which made doctors feel they were being watched and judged, and therefore had to prove themselves. They were also found to have a mistrust of nurses. Many supervisors were felt to have a lack of understanding of specific issues for overseas doctors.

In summary: IMGs and BME obtain lower exam results, experience issues related to social and cultural transition into the UK, for example having less social support, being older and having dependents, being trained in different healthcare systems (experiencing difficulties related to feedback and the training environment). There were also issues related to communication and language which can act as a barrier to progressing through training.

4.3.4.1.1 Interventions identified from the papers

One study in the review recommended re-emphasising the importance of communication skills, which are necessary for eliciting from the patient, and conveying to the patient, key clinical information, and keeping that communication training up to date (Laidlaw *et al.*, 2006). Many of the interventions centred on trainee induction and social programmes (Wakeford, 2012; Mahajan, 2007; Zulla *et al.*, 2010

& Atri *et al.*, 2001) to help acculturation. Raising the awareness of supervisors about the culture of the trainee and an increase in awareness of family circumstances outside of work may also help with difficulties that arise at work. A number of studies in this review suggested introducing mentoring and/or buddy schemes where IMGs and a graduate from the host country are working together (Atri *et al.*, 2001; Yao and Wright, 2001; Mahajan, 2007; Laidlaw *et al.*, 2006; Gozu *et al.*, 2009 & Zulla *et al.*, 2010).

Supervisors should be more culturally aware and sensitive to consider differences in training experiences (Yao and Wright, 2001; Zulla *et al.*, 2010; Broquet and Punwani, 2012), for example relating to the concept and delivery of feedback, which may be a threatening concept (Broquet and Punwani, 2012). To help reduce problems passing exams, (Wakeford, 2012) suggested introducing more realistic selection and recruitment targets for deaneries (MacLellan, 2010; Papadakis *et al.*, 2008, Esmail and Roberts, 2013) and reviewing PLAB standards (Wakeford, 2012). Often trainees who require the most support are placed in the least popular training schemes. Therefore, trainees should be provided with more support and an enhanced educational experience (Wakeford, 2012).

4.3.4.2 Gender

There were mixed reports on the relevance of gender related to underperformance in the papers reviewed. However, in many of the studies, females were more likely than males to be less satisfied with their work-life balance (Mahajan, 2007; Yao and Wright, 2001; West *et al.*, 2011). One study reported higher levels of burnout in females (Bee hung *et al.*, 2010). However, two studies (Hyman, 2011, Campbell *et al.*, 2010) reported that males were more likely to suffer from burnout. A literature

review by Thomas (2004) looked specifically at burnout and found that none of the fifteen studies reviewed reported burnout to be a higher risk in females, and only one study was correlated with male residents. However, of the fifteen studies reviewed, only four commented on gender and burnout.

Bee-Horng *et al.*, 2010) investigated stress and burnout in first year residents in Taiwan and explored the relationship between stress, personal characteristics and burnout. They reported that whilst there was no statistical difference between males' and females' stress levels, males were more likely to perceive stress as an issue than females. The main stressors were reported to be sleep deprivation, keeping alert whilst on call, excessive paperwork and administration responsibilities, interruption of work by hassles, heavy workload, fear of making a mistake and litigation. In the same study females showed higher levels of burnout, particularly burnout related to work. However, in a longitudinal study, Campbell *et al.*, (2010), surveyed internal medical trainees over a three-year period (starting from their intern or first foundation programme year), using Maslach's Burnout Inventory (MBI) (Maslach, 1981), and found that persistent burnout was more likely to occur in males and had a positive association with depression in their internship year.

A Canadian study (Laidlaw *et al.*, 2006) looked at the communication and performance of first and second year residents in one medical school. They found that females who spoke English as their first language performed better than non-English speaking females and males in general.

One qualitative study (Ridson, *et al.*, 2000) looked at the sexual orientation of trainee doctors and tried to gain an understanding of the experiences of gay and lesbian physicians in training in Canada. They reported that sexual orientation affected their

decision as to whether they stayed in medicine, and their chosen career path if they did. Trainees reported negative and discriminatory comments, which influenced their decision on whether to disclose their sexual orientation. This caused trainees to be unsure of their identity. Those who were just becoming aware of their sexual orientation were more vulnerable to stress and discussed feeling suicidal. However, there were also positives identified. Trainees felt more empathy and connection with minority groups, and reported greater recognition of patients' inner conflicts.

Coping strategies were found to be different in male and female residents. Male residents were more likely to use a disengagement coping strategy than females, whereas emotion-focused engagement strategies were preferred by females (Bee-Horng. *et al.*, 2010). If trainees had more social support and utilised this, then they reported that they felt less tension-anxiety, depression-dejection and confusion-bewilderment. Females were found to be more likely to use social support as a coping strategy than male residents. Hyman (2011) found that burnout in a trainee could affect their coping strategy, for example using negative coping strategies such as misuse of substance or alcohol.

Yates (2010) looked at the risk factors associated with subsequent professional misconduct in medical school. Yates (2010) found that male students with difficulties during medical school were a potential risk factor for subsequent professional

misconduct (odds ratio = 9.80, lower social class and experience CI=2.43 to 39.44, $P<0.001$).

In summary: It was unclear whether males or females were more likely to underperform in their training. However, females were more likely than males to be less satisfied with their work-life balance. Males were (reported by two studies) more likely to experience burnout compared with (one study) females. Males were found to be more likely to perceive stress than females. There were differences found in coping strategies utilised by males (disengagement strategies) and females (social support strategies). This may have implications for take up of support and remediation put in place.

4.3.4.2.1 Interventions identified from the papers

Several of the articles discussed that an increase in awareness of family circumstances outside work by the supervisors would help to alleviate additional stressors. Earlier identification of work stressors, support and interventions should be put in place (Campbell *et al.*, 2010). For example, educational interventions could include: better personal coping strategies and the importance of good health and social support (Hyman, 2011). There also needs to be an increase in awareness of the importance of social support (Bee-Horng *et al.*, 2010).

4.3.4.3 Age

Difficulties for trainees were more predominant in their early years of training. Several studies showed that trainees in their early years of postgraduate training were more likely to be stressed and show signs of difficulty. This was linked to several factors, such as: dissatisfaction with work-life balance (West *et al.*, 2011), increase in job demands (Thomas, 2004), stress (Buddeberg-Fischer *et al.*, 2008) and type of specialty chosen (Hyman, 2011). However, this may be different in IMGs. Zulla *et al.*, 2010 reported that IMGs are often older and at a different life stage to

their peers, having previously trained and worked in their own country then starting again in the training system in the host country. Often IMGs have, for example, family commitments and children, and financial issues. This, coupled with social isolation, could cause stress or lower esteem.

Age was also found to be heavily linked to stress and burnout in younger trainees (West *et al.*, 2011; Hyman, 2011; Thomas, 2004). Age was found to be one of the factors in predicting communication skills competency in a study by Laidlaw *et al.* (2006) in which residents under the age of 30 were found to be the better communicators.

In summary: Older IMGs were more likely to experience difficulties in their training, due to being older and having dependents and therefore being at a different life stage to their peers. Younger trainees were more likely to experience difficulties due to being dissatisfied with their work-life balance. Burnout was also found to be more likely in younger trainees. Age was linked to communication skills with trainees below the age of 30 being found to have better communication skills. Findings may help to know where to target interventions.

4.3.4.3.1 Interventions identified from the papers

Some awareness by the supervisor of family circumstances outside work would be beneficial. An increase in support for health and an increase in work satisfaction may help to decrease burnout (Hyman, 2011).

4.3.4.4 Personality/Psychosocial factors

Personality can affect how one copes and deals with a situation. Some personalities can be more prone to stress or burnout or adapt less well to stressful situations.

There were several studies that found that certain personality types were an indicator

of difficulties in training (Hyman, 2011; Thomas, 2004; Bee-Horng *et al.*, 2010; Buddeberg-Fischer *et al.*, 2008; Adshead, 2010).

A study conducted in Switzerland by Buddeberg-Fischer *et al.* (2008) surveyed residents in their 2nd and 4th year of resident training looking at correlations between stress and working hours. They reported that high levels of over commitment at work caused additional stress and negative impacts on residents' health. A questionnaire study, with Taiwanese Year 1 Postgraduate doctors, reported that they found it hard to disengage with patient and job demands and reach a work-life balance, leading to negative health impacts (Bee-Horng *et al.*, 2010).

In a literature review looking at burnout, several studies reported specific personality traits which were linked with residents being more at risk of experiencing stress or burnout. This had a negative effect on patient care and may be an associated cause of depression in trainees. Alexithymia, which is an inability to recognise one's emotions, can be linked to burnout and potentially cause difficult interactions (Thomas, 2004). Trainees who have low self-esteem, a 'victim mentality', low-hardiness, (Hyman, 2011) neuroticism and low conscientiousness personality types have been found to correlate with type of coping strategy used, stress and burnout (Bee-Horng *et al.*, 2010). One article highlighted (Adshead, 2010) that bio-psychosocial issues such as insecure attachment (an individual experiencing neediness, dependence and vulnerability in a relationship) can make a person more

prone to higher levels of stress or Post Traumatic Stress Disorder if an internal or external stressor occurs.

In summary: The personality (e.g. alexithymia, low self-esteem, neuroticism, low conscientiousness, low hardiness and having a 'victim mentality') of trainees was found to be linked to stress, burnout and coping strategies used. These can all influence how a trainee deals with the demands of their job, and engages with their patients and teams they work with. Understanding some of the risk factors and who is more prone to experiencing stress and burnout may help to better target support.

4.3.4.4.1 Interventions identified from the papers

A study by Bee-Horng *et al* (2010) recommended that improving a trainee's well-being and understanding of their personal characteristics will help to identify those at risk of burnout or lead to early support. Care should be taken to avoid trainees' excessive or unrealistic self-expectations to help reduce burnout (Hyman, 2011 & Bee-Horng *et al.*, 2010).

4.3.4.5 Background

A trainee's background and family history can potentially have an impact on their performance and their resilience to overcome difficulties. Yates (2010) looked at medical school risk factors associated with subsequent professional misconduct. Fifty-nine doctors who had graduated from eight UK medical schools between 1958 and 1997 and had a proven GMC serious professional misconduct between 1999 and 2004 were identified. Two hundred and thirty-six control cases were also selected as part of the study. Yates found students from a lower social class (odds ratio = 4.28, 95% CI=1.52 to 12.09, $P=0.006$) had experienced academic difficulties during their medical course, especially in the early years. For example, those with failure of early pre-clinical exams, resitting part of the course, lower overall

performance than their peers (odds ratio = 5.47, CI=2.17 to 13.79, $P<0.001$) were also more likely to graduate late due to resitting final clinical exam or redoing a year. There was no evidence to suggest that this was because of health or personal reasons. These trainee cases were also less likely to have achieved consultant status (Yates, 2010).

A study carried out by Bryson (2009) examined the reintroduction of residents into clinical practice of anaesthesiology, following recovery from substance abuse. A survey was completed by 91 (69%) programme directors. Several factors such as family history and a co-existing psychiatric condition were important to be taken into consideration if they were to be reintroduced back into the training programme. The study found that twenty-five percent of residents had at least one relapse after their initial treatment. Factors identified as being associated with an increased risk of relapse included a family history of substance misuse, the use of a major opioid, such as fentanyl, and the presence of a coexisting psychiatric disorder (Bryson, 2009).

4.3.4.5.1 Interventions identified from the papers

In summary: Having a lower social class was found to be linked with academic difficulties, especially in the earlier years and with pre-clinical exams. Achievement to consultant status was also found to be less likely. Having a family history of substance abuse and having a co-existing psychiatric condition were risk factors to relapsing following treatment and reintroduction into the clinical programme following recovery of substance abuse.

There needs to be more longitudinal tracking of doctors' careers from medical school through to postgraduate training to identify what happens later in a trainee's career, to gain a better understanding of issues. Trusts should help to support doctors who had been identified as having difficulty during their training to put support

mechanisms in place earlier in a trainee's career, which will help to help improve patient care (Yates, 2010).

4.3.4.6 Financial Issues

Fiscal issues, (Sargent *et al.*, 2004) such as high levels of educational debt (West *et al.*, 2011 & Hyman, 2011), were found to be a contributing factor for doctors having difficulties and experiencing stress. This affected quality of life (West *et al.*, 2011) increased stress levels (Sargent *et al.*, 2004) and increased the chances of burnout (Hyman, 2011), all of which can have a negative effect on health and well-being. Interestingly, a study carried out by West *et al.*, (2011) reported that US graduates were more likely than IMGs to suffer from emotional exhaustion and depersonalisation symptoms associated with burnout unless the IMG had high levels of debt and then they were significantly more likely to suffer from burnout. However, West *et al.*, (2011) did make an important point that debt could be a surrogate for another variable such as socio-economic background as the stressor that affects well-being.

In summary: Financial reasons related to having high levels of educational debt were linked to stress and burnout in doctors, affecting quality of life and decreased work productivity. US graduates were more likely than IMGs to experience burnout unless burnout was related to high levels of debt and then IMGs were more likely to experience burnout. With the recent increase in University fees in the UK this may have higher implications for UK graduates in the future.

4.3.4.6.1 Interventions identified from the papers

There was a suggestion that there should be interventions such as debt relief programmes (West *et al.*, 2011). Training should be offered in medical school on debt and finance management, to better prepare trainees and reduce anxiety. This may become even more relevant given the recent increase in University fees in the UK leaving some students with high amounts of debt on leaving University.

4.3.4.7 Organisational Factors

The final theme which emerged from the literature was organisational factors. These underpin the other seven indicators mentioned above and can help or hinder the trainee. Several articles (Wakeford, 2012, Hyman, 2011; Thomas, 2004; Bee-Horng *et al.*, 2010 & Sargent *et al.*, 2004) discussed organisational factors in relation to trainee underperformance. These factors sometimes exacerbate an already stressful period in a doctor's training. They include: having to reach unrealistic targets, and the type of specialty that the trainee works in. For example, those in a high pressured and demanding specialty, such as perioperative clinicians, have been found to be more at risk of burnout due to high production pressures, staff shortages and having to deal with very ill patients, resulting in high levels of responsibility (Hyman, 2011).

Other pressures are having to reach a balance between work, life, and training (West *et al.*, 2011). These factors, when coupled with other indicators, can exacerbate issues or hinder interventions.

In summary: Organisational factors such as, high work demands, staff shortages, unrealistic targets and very ill patients (depending upon the specialty the trainee worked in), which resulted in an increase in responsibility, were all found to exacerbate an already stressful period. Stress was also increased when trying to reach a work-life balance. Organisational factors and the context in which a trainee works in can have implications for whether interventions for trainees underperforming work.

4.4 Discussion

This review aimed to answer the question: 'Are there indicators associated with trainee doctors who have experienced difficulties in their postgraduate medical training?'

The majority of the articles were from Canada and the USA (Maclellan, 2010; Papadakis *et al.*, 2008; Yao and Wright, 2001; Zulla *et al.*, 2010; Atri *et al.*, 2008; Gozu *et al.*, 2009; Laidlaw *et al.*, 2006; Broquet and Punwani, 2012; West *et al.*, 2011; Hyman, 2011; Thomas, 2004; Ridson, *et al.*, 2000; Campbell *et al.*, 2010; Sargent *et al.*, 2004 & Bryson, 2009) and survey based in nature. As much of the literature in this review was from outside of the UK, it is worth acknowledging that direct comparisons across different healthcare and training environments are not always applicable. Many studies had small sample sizes and were based on self-report, although there were several articles which were based on larger sample sizes (Wakeford, 2012; Papadakis *et al.*, 2008; Esmail and Roberts, 2013; West *et al.*, 2011; Bee-Horng *et al.*, 2010; Bryson, 2009 & Yates, 2010). Within each theme, several specific vulnerabilities emerged from the literature. Some themes were more populated than others, such as being an International medical graduate (IMG), whereas some themes, such as background, had only two relevant studies. It may be

that there has been more research on overseas doctors carried out and therefore there are more articles to draw upon. The articles were heterogeneous in nature but seven clear themes emerged from the articles. The term ‘indicator’ was used in Phase 2 of this thesis to refer to identified characteristic associated with difficulties and the risk factor was used to describe the associated risk (due to the indicator) of having difficulty progressing through postgraduate medical training.

These are summarised in table 9 below:

Table 9 Summary of the seven indicators which emerged from the data.

Indicator	Risk factor
Country of qualification & ethnicity	Lower exam results, issues related to language, communication, acculturation, professional and training integration and social isolation. Ethnicity was also found to be related to negative discrimination.
Age	Burnout and stress (younger and earlier in their career) Work-life balance is an issue if older (an issue for IMGs)
Gender	Issues related to achieving work-life balance (females) Experience more stress (females); perceive more stress (males) Burnout experienced (males) Different coping strategies between males and females Sexual orientation and whether to disclose this causes stress due fear of stigma and negative discrimination.
Personality traits	Some personalities are more prone to stress and burnout, chose different coping strategies (e.g. neuroticism, low-hardiness)
Background	Less well in academic achievement
Financial	Issues related to debt
Organisational	Increase in stress and burnout related to work intensity, unrealistic expectations, specialty choice.

Kruger and Dunning (1998) found a link between doctors who were underperforming and lower exam results). They conducted a social psychological experiment and found evidence that those people who scored in the lower quartile of their exams tended to overestimate their abilities and skills. As Hodges *et al.* (2001) point out, when this study was replicated with doctors, those with the least skill may be most at risk of assessing their skills and competence inaccurately. This has implications for IMGs who are scoring lower on exams (Wakeford, 2012; MacLellan, 2010; Papadakis *et al.*, 2008; Esmail and Roberts, 2013; Mahajan, 2007) and who may also not be happy to receive feedback (Broquet and Punwani, 2012) around working within a team (Mahajan, 2007), or have different perceptions to those of their supervisors and may be less likely to seek help from supervisors (Morrow *et al.*, 2013). Overseas doctors are required to pass an IELTS exam and the PLAB exam or equivalent (to practise in the UK). However, the PLAB exam may not be adequate (Tiffin *et al.*, 2014). Several papers linked poor linguistic skills and poor communication skills as indicators of doctors in difficulty (Wakeford, 2012; Mahajan, 2007; Yao and Wright, 2001; Gozu *et al.*, 2009; Laidlaw *et al.*, 2006).

Personality and performance difficulties have been shown to be linked (Doherty and Nugent, 2011). In a systematic review, Mitchell *et al.* (2005) linked stress and performance to personality in postgraduate trainees. Some personalities can be more prone to stress or burnout than others and adapt less well to stressful situations (Hyman, 2011; Thomas, 2004; Bee-Horng *et al.*, 2010; Buddeberg-Fisher *et al.*, 2008 & Adshead, 2010).

Much of the literature linked poor performance with psychosocial issues such as stress and burnout. A variety of validated scales (similar to each other or modified

from each other) were used to measure well-being, stress and burnout across the studies. It is important to be able to identify those trainees who are at risk of burnout, to reduce the effects of burnout, such as poor job performance, poor attendance, attrition levels, negative effects on team members and negative coping systems such as substance and alcohol misuse (Hyman, 2011). Therefore, there is a self-perpetuating cycle being created, which needs to be recognised and broken.

There is also a cultural aspect to consider because overseas doctors were less likely to report they suffered from burnout compared with US graduates (West *et al.*, 2011). This may be due in part to cultural differences in disclosing and/or admitting that they are emotionally exhausted or were experiencing symptoms of depersonalisation. It may be that they frame it in their worldview and belief system in a different way and therefore also deal with it in a different way to US/UK graduates. This needs investigating further.

Previous research has shown that women are less likely than men to be referred for disciplinary hearings (Tiffin *et al.*, 2014; Firth Cozens 2008 & Unwin *et al.*, 2014). However, the literature in this review shows that women reported suffering more from issues related to negative work-life balance, and stress. This may show that while women may feel more stressed they may recognise it earlier on and therefore seek help and support so that it does not escalate into a disciplinary issue. Women have been shown to use social support more as a coping strategy, which may help with counteracting stress (Bee-Hornig *et al.*, 2010).

Organisational factors also play a part in contributing to a stressful environment that can lead to a doctor being in difficulty. Misunderstandings around issues and having different perspectives can lead to concerns, which may be easily rectified before they

escalate. Examples are overseas doctors' understanding of the reasons for supervisors' feedback on their performance, recognition of different training schemes and the passing or failing of exams. Feedback is important to understand how one is performing and to enhance the learning process (Delva *et al.*, 2013; Teunissen *et al.*, 2009; Archer, 2010). Therefore, if trainees are not acting upon feedback they will miss out on this important element of their training and development.

Personality is a multifaceted issue when looking at underperformance of an individual and therefore it is difficult to say one personality trait is more likely to lead to underperformance than another (Cohen *et al.*, 2007). However, it is an important consideration, influencing doctor performance, and needs further research in the context of the day-to-day working environment and how an individual's personality can affect this.

Moderate stress can enhance learning if it is not caused by the thing being learnt and is related to the learning experience (Le Blanc, 2009). Another important point to make about stress is that it is personal. What one person considers to be stressful may not be the same for another person (Le Blanc, 2009). This is where risk factors such as those mentioned in this review come in to play, for example organisational factors, time or life events outside work, personality types and individual coping strategies, all of which may impact on a trainee having difficulties.

It is hoped that this literature review has helped to highlight some of the indicators and associated risk factors that contribute to a doctor underperforming during their training. Simply providing a list of indicators of doctors in difficulty that one can choose from is not in itself the way forward, but findings from this review could be

used as a checklist and guidance for trainers to be aware of, so that a need can be identified and additional support can be put in place.

4.4.1 Implications for practice and research

Several interventions and recommendations were suggested by authors to help mitigate against issues, and to support trainers and their trainees when difficulties in training arise. However, these need to be explored and evaluated further.

It is important to recognise the contribution that IMGs make to the UK healthcare system as the NHS relies upon them heavily. More support and recognition of their needs should be in place to ensure IMGs are fully supported. McLachlan *et al.* (2013) recommended that the General Medical Council (GMC) (the UK regulator for doctors) should carry out better monitoring and recording by collecting demographic data during the Professional and Linguistic Assessment Board (PLAB) test. This would enable analysis of the influence that demographics have on test outcomes. Induction to the UK healthcare system and language support may also help (Mahajan, 2007 & Atri *et al.*, 2001).

There are several ways that the risk factors identified in this review can influence trainee doctors and patients. The main impact was cited as stress on doctors leading to burnout. Hyman (2011) identified six main factors important for the development of burnout: work, occupational, organisational, demographic, personality characteristics and job attitudes. These six factors fit with the themes derived from the literature review.

There is a stigma attached to seeking help, especially within the medical profession where doctors are known for not seeking medical help and do not want to show their

weakness (NCAA Report, 2004). In addition, different perspectives between trainees and a trainer are important to explore, for example differences between trainer and IMG perspectives on why trainers give feedback (Broquet and Punwani, 2012) Understanding these differences in perspectives will aid in knowing how and where support should be targeted.

There is a link between burnout and alcohol and drug misuse within the medical profession (NCAA, 2004). Suicide has also been linked with burnout and has a high prevalence in medicine (Hawton *et al.*, 2001) Psychological states and personality can also influence exam scores (Girard *et al.*, 1991; Filho, *et al.*, 2007). However, other research has not identified a connection between exam performance and resident well-being (West *et al.*, 2010), or medical knowledge and well-being (Beckman *et al.*, 2011).

This literature review has brought to light several areas that need further investigation. There is a need for more qualitative studies to understand what is going on in more depth and from several different sources, such as from a trainee and trainers' perspective, as there may be different perspectives on the same issue. There also need to be more longitudinal studies to follow trainees up to see if difficulties continue or, if they do not, what made the difference.

4.5 Conclusion

The review of the literature set out to identify what are the indicators relevant for doctors having difficulty during their postgraduate medical training. It also identified potential interventions. The review identified seven key indicators. It highlighted indicators to help educators and employees recognise potential factors which may be

associated with doctors underperforming. The seven indicators and risk factors identified can help to better target support and interventions for trainees who are underperforming. Interventions should be put in place to help prevent underperformance issues from escalating. It is worth mentioning that not all issues can be foreseen or managed. Many of the interventions highlighted in the review should not be used in isolation but rather be applied together, depending on the issue. The interventions may also consider the personality type of the trainee. Trainee insight has been suggested as a factor as to whether the intervention(s) put in place were successful and whether trainees engaged with them (Cohen *et al.*, 2007).

Furthermore, there is a need for more in-depth qualitative longitudinal studies to understand what is going on and from several sources, as there may be different perspectives on the same issue. Many of the papers in this review rely upon self-report from one source only.

It is hoped that a framework or model from this review, along with other work being done by the researcher in this thesis, will aid practitioners working in this area to identify and provide support earlier for those doctors who are at risk of underperforming, and who may benefit from the identified support and interventions.

4.6 Limitations

Firstly, the studies in this review mostly had small sample sizes and often took place in one organisation or institution. Therefore, results are difficult to generalise.

However, there was considerable overlap in general findings in some of the themes, which indicates that some generalisations could be made.

Secondly, the studies were mostly based on self-report from one source and reliant on recall or insight of trainees. Issues may also be under-reported or played down if participants felt that anonymity was at risk.

Thirdly, as there was only one person reviewing the papers there was potential for introducing bias. However, to help ensure quality, papers were assessed for quality (validity and reliability), (Booth *et al.*, 2012) and for relevance to answer the research aim. There were clear inclusion and exclusion criteria to ensure relevance of the article to the review being undertaken. Furthermore, at each stage of the review the supervisory team were informed of the process and a discussion took place around the articles and the themes being generated from the review. On several occasions, supervisors were asked their opinion on whether an article should be included (according to the inclusion/exclusion criteria).

The articles were heterogeneous in nature and utilised different methodologies (both qualitative and quantitative) and therefore data was synthesised into themes and a thematic synthesis approach was used for analysing the data. However, there was high concordance found between the studies in the review, enabling themes to be derived.

Chapter 5 Methods for Phase Three - qualitative interviews

5.1 Introduction

The following chapter outlines the research question and methods for Phase Three of the thesis in detail and outlines the practicalities of conducting the qualitative phase (Phase Three) of this thesis.

Drawing on constructivist theoretical perspective as discussed in the methodology (Chapter 2).

5.2 Research aim

To identify trainer and trainee perceptions of the barriers and enablers to progressing through specialty training.

5.3 Discussions with Experts

In advance of data collection several informal discussions with experts in the field of medical education with a specific interest in doctors who have performance issues took place (n=5). These were used to gauge pertinent issues to be covered in the main data collection and provide additional background information.

5.4 Development of interview schedules

Interview schedules were derived from findings in the literature review and from discussions with several experts in the field using convenience sampling. A range of experts were invited to help inform the interview schedule, for example questions related to the systems in place to identify underperformers. Portfolio questions came

from discussions with experts and questions on overseas doctors came from the literature review.

As the research area is potentially sensitive, it was decided not to use focus groups to inform the development of interview schedules. In addition, it would have been difficult to get participants together for focus groups due to work patterns.

5.4.1 Piloting the interview schedule

Although the interviewer had experience of conducting research interviews, it was still necessary to pilot the interviews to ensure the questions were clear. Also the researcher was able to determine how long the interview was likely to take, check for flow, understanding and interpretation of the questions i.e. has the participant understood the question correctly and does it make sense to the participant and provide data that will answer the research question of the study? The pilot data was not part of the study sample.

During this piloting stage, I interviewed a consultant doctor who had received an adverse ARCP outcome during his training (in a different geographical region). I also asked colleagues to read the interview schedule to check if it flowed, if the questions made sense and whether their understanding of what the question was asking was the same as I had intended. This helped me to restructure some of the questions. For example, one of the questions was too leading and so this was changed to make it more neutral. Additionally, probes were also added to two of the questions to help with clarification.

The interview schedule changed three times over the course of the interviews following constant comparison of data. Additional questions and probes were added

to explore areas that were coming out of the data that I was interested in. Some questions were taken out of the interview schedule because they were not proving to be useful.

5.5 Research procedure and collection of data

5.5.1 Sampling

Sampling is an important consideration in qualitative research. It is important to understand who is in your sample. Important considerations include whether you are asking a representative group to answer your question, so that a range of views and opinions are included, because a qualitative research sample is smaller than that of quantitative research (Illing, 2007).

There are two types of sampling: probability sampling, which is usually used when sampling in quantitative studies, and non-probability sampling, which is usually used in qualitative studies. Non-probability is a sample which has not been selected using a random method i.e. some people within the population you are studying are more likely to be selected than others, for example where a researcher is interested in understanding the social process or actions of a specific population and full representation is less important (Gilbert, 1993).

5.5.1.1 Convenience Sampling

Experts within medical education (n=5) were identified via convenience sampling and approached via email to ask if they would be willing to take part in the research and to help with the development and focus of the research questions.

There are several limitations to choosing convenience sampling, as this may influence the information given. However, participants were from a range of

disciplines and organisations and data was themed to help reduce one person's opinion coming through strongly and influencing the findings. Convenience sampling is a useful method when you need to clarify or develop questions but the data you are collecting is not the main data collection, as is the case with this research.

5.5.1.2 Purposive Sampling

Purposive or judgement sampling is a common method of non-probability sampling in qualitative research. It groups participants according to pre-selected criteria relevant to a particular research question, which helps to provide control over who you are sampling (Kuzel, 1992). One of the strengths of purposive sampling is that the researcher collects data which can address the phenomena being studied. However, a weakness is that not all participants may be included who have insight into the phenomena being researched.

For this research study trainers in one geographical training area and trainees from the same geographical area, who had received an ARCP outcome two or three during their training and who were still in training at the time of the study, were purposively selected.

The researcher follows the data and specific lines of enquiry in the data until data saturation is achieved and no new themes emerge. It is estimated that data saturation will be achieved at approximately thirty interviews. Baker *et al.* (2014) comment that 30-50 interviews are recommended in grounded theory. If additional interviews are required, then further data collection from participants from the same population will be needed. This is called theoretical sampling.

5.5.1.3 Theoretical Sampling

Theoretical sampling is used in Grounded Theory because the researcher aims to seek further information to confirm categories that are emerging from the data. The researcher could pursue additional groups of participants or information (Charmaz, 2009). This research sought further information from participants, which increased the approximate sample size of thirty trainer participants to fifty to help inform categories and substantive theory. For example, several trainers discussed overseas doctors as having difficulties in answer to my open question about issues trainees may have. In subsequent interviews, this was then used as a prompt. The same pattern was used for 'catching issues early on'. Several trainers commented on a failure to fail culture and this was followed up in subsequent interviews to make sure these were definite themes coming out of the data.

Difficulties experienced by overseas doctors was a theme coming out of the data in phases one and two of this thesis and I attempted to recruit further overseas trainees who had received ARCP outcomes 2 and 3 into my sample. An additional five overseas trainees responded positively to the invite to interview but this only yielded an additional two trainees to be interviewed. This shows that trainees are keen but, potentially due to practicalities of work or home life, these did not take place despite several follow up reminder emails.

5.5.2 Response Rates

Response rates depend a lot on the motivation for taking part in the research. If a researcher is doing research which will be beneficial for the participants' colleagues or peers, for example other doctors or trainees, then the response rate is likely to be

higher as there is some professional reason for being part of the research and some potential benefits. If the research is not related to participants or it is, for example, market research, then the response rate is likely to be lower (Lingard and Kennedy, 2010). I was mindful of this in the information sheets where I stated that participants may not benefit directly from this research but they may help future trainees and trainers in understanding issues and knowing where to direct support. It was hoped that this would help with motivation to take part in this study.

During the interview and following the interview, either on completion of the interview or through a follow up email, some trainees and trainers commented on their reasons and motivation to take part in the study. It was generally felt that this was a very important area of study and more understanding was needed. In addition, those trainees had found the process cathartic and wanted to tell their 'story'. Following the interview some trainees and trainers emailed and said that they had been 'galvanized' into doing something in this area, for example setting up peer support groups or Facebook pages for support, or to find out more information or courses on doctors with differing training needs.

5.5.3 Study Participants and Recruitment

Two cohorts of participants were interviewed for this part of the study:

- **Trainers** - Training Programme Directors (TPDs), Directors of Specialty School, and Heads of Specialty Schools, Educational supervisors
- **Specialty Trainees** who had received at least one adverse RITA or ARCP outcome in their annual competency review (targeted or extended training).

Trainers - Training Programme Directors (TPDs), Directors of Specialty School, and Heads of Specialty Schools, Educational supervisors

Semi-structured telephone interviews were conducted with Training Programme Directors (TPDs), Directors of Specialty School, Heads of Specialty Schools and Educational Supervisors.

Interviews explored their experiences with trainees (participants were asked not to identify the trainees to whom they might be referring) and their perspective on which trainees receive adverse ARCP/RITA outcomes, the possible reasons and what could be put in place to help support trainees who require extended periods of training. Further questions explored whether Training Programme Directors, Directors of Specialty School, Heads of Specialty Schools and Educational Supervisors had received enough training to help support trainees in difficulty. The Interviews lasted approximately 20 minutes. Some interviews lasted for a longer period of up to 40 minutes but the researcher checked with the participant at 20 minutes whether they were happy to continue.

Specialty Trainees who have received at least one adverse ARCP or RITA outcome in their annual competency review.

All specialty trainees in one Health Education England (HEE) regional office who had received at least one extended period of training (ARCP outcome 3) or who had some targeted training (ARCP outcome 2) were contacted. It would have been too difficult to trace doctors who are no longer training in the HEE region because they were excluded from their training (due to receiving an outcome 4).

Semi-structured telephone interviews with trainee doctors who have had extended periods of training were conducted. These lasted approximately thirty to forty minutes. Some of the interviews went over the forty minutes and participants were asked at that point if they were happy to continue.

Interviews were exploratory in nature and aimed to find out in more depth potential contributing factors that led to them receiving an adverse ARCP outcome and whether there was anything that could have been put in place earlier to help prevent this outcome or support them during the process. Questions were open in nature to facilitate exploration of areas (see appendix 3 for the interview schedules).

5.5.3.1 Recruitment

Health Education England regional office, who hold contact details for potential participants, emailed an invite to interview and an information sheet (see appendix 4 for information sheets) to potential participants, with a link asking them to respond directly to the researcher's email address if they were interested in taking part in the study.

A mutually convenient time was arranged, via email, for a telephone interview between the participant and myself. They were arranged for weekdays and weekends and between 8am and 10pm at night to accommodate the participants.

A short pre-screening e-survey was sent to participants who agreed to take part in the interview following recruitment. This was to ascertain key characteristics such as age and gender. Participants were asked to email this back to the researcher prior to the interview.

5.5.3.2 Inclusion criteria used for interview participants

Inclusion criteria for trainees

- Received an ARCP 2 or 3 outcome
- Secondary care core or SPR training in a on specific HEE regional area (not GP)
- Willingness to take part in study

Inclusion criteria for trainers

- Trainer (have an educational role) in one specific regional area
- Willingness to take part in the study

5.5.4 Recording and transcribing of data

Cresswell (2003) argues that interviews should be recorded and that it is necessary to the research process. In addition, if interviews are recorded, direct quotes can be used in the reporting of findings. All interviews were recorded using a digital recorder following written and verbal consent. Interviews were transcribed verbatim using an external transcription company (Ndata). I used a combination of writing notes (during initial interviews with experts) and audio recording of interviews with participants. I also took notes during the telephone interview as a back up to the recordings. As the interviews took place over the telephone, there was not the need to maintain eye contact with participants, which can be a disadvantage of taking notes during face-to-face interviews. These notes also helped with initial coding and constant comparative stages. I also found it useful to take notes so that I could go back and refer to a point that a participant had made during the interview and clarify or ask them to expand.

Transcripts were checked against the written notes I had taken from my interviews and against the data file of the interview to check for discrepancies. I also listened to some of the recordings to familiarise myself with the interview. One trainer asked for their transcript to be sent to them to enable them to check what they had said. Once it had been transcribed, it was sent to the trainer who sent an email back approving its use for data.

5.5.5 Ethical Approval

An ethics approval was successfully gained from Durham University School of Medicine, Pharmacy and Health ethics subcommittee for Phase Three of this thesis (See appendix 5).

5.5.5.1 Data Management

All transcripts were given a unique identification code so that interview data could be identified. Data was stored on a password-protected computer at the University and/or locked in a secure filing cabinet in a lockable office. Data will be kept for the duration of the PhD and will be destroyed following the completion of the PhD and subsequent publications.

5.5.5.2 Consent and Confidentiality

Interviews were recorded with participants' consent with the use of a Dictaphone and telephone recording device to enable both sides of the conversation to be recorded. Interviews were recorded to aid the researcher with analysis. Participants were asked to complete a consent form (appendix 6) prior to interview. They were asked

again prior to recording of the interview, and once again at the start of the recorded interview whether they consented to have their interview recorded and transcribed.

Participants were given a unique identifier, which replaced names and any identifiable information such as age and specialty to ensure that the anonymity and confidentiality of the participant were maintained. Any identifiable information and names have been removed from transcripts and from any quotes that have been reported during the thesis or in any conference papers that have been presented.

5.5.6 Conducting the interviews

The use of intensive interviewing methods (which is an in-depth investigation of a topic) is a good way of collecting data using the grounded theory method (Charmaz, 2009), as both methods rely upon the use of open-ended questioning which allows the emergence of data. It also allows the researcher to take control over the direction of the data collection and analysis.

The method adopted for interviews was to devise an interview schedule that was informed by experts in the field. Interview questions focused on important issues, and a few broad open-ended questions were included to enable and facilitate the participants' stories to emerge. In this way by inviting and gently encouraging participants I was helping them to share their experiences with me. Participants were asked for clarification, and to add details to help them reflect upon their experiences.

An advantage of using interviews is that the interviewer is allowed to lead the conversation and follow up on areas they think are pertinent. This is unlike an ordinary conversation where this may be interpreted as being rude. This allowed me to follow up on and ask participants to expand on relevant issues.

Interviews were semi-structured in nature drawing on issues identified in the scoping exercise (Phase One) and the literature review (Phase Two) but also allowing interviewees to introduce new issues of pertinence to them.

Interviews were conducted via the telephone rather than face-to-face. This was largely for feasibility reasons; participants were dispersed geographically across a large region and were professionals with busy work schedules involving shifts, on call rotas. By using telephone interviews, some flexibility in times can be obtained. In addition, asking sensitive questions by telephone may be preferable as evidence shows that respondents may find it easier to discuss issues which may be sensitive over the phone (Illing, 2007). There is also research to say that there is little difference in responses when interviews are conducted via the telephone compared to face-to-face (Sturges and Hanran, 2004).

5.5.6.1 Potential Risks and Hazards

An important consideration when conducting research is the potential risks and hazards for both the researcher and the participants. Potential risks were identified for trainee participants, as topics could be sensitive and upsetting for the participants. Important considerations prior to the research were taken into account to try to minimise the risks. I read around the topic of conducting research in sensitive areas to help prepare myself for conducting the interviews. When entering the lives of others, the researcher needs to be mindful and respectful of the participants' privacy and how much they intend to disclose of their life. I was very aware of this during the interviews with trainees when they were disclosing often very sensitive events, which held great meaning to them.

“you need to demonstrate a certain degree of discretion, of respect, of appreciation for what they are doing...it is more than just words, it’s more than just what you are going to analyse, it’s their life, their experience and you need to make sure you are aware of that” (Dickson-Swift et al., 2007p328).

The researcher must remain objective throughout the research. Again, I was very aware during the interviews not to be drawn into the ‘stories’ that the participants were telling me and to remain impartial but remain respectful of what they were sharing.

Considerations that the researcher can apply to mitigate some of these risks and hazards are to consider and pre-empt scenarios and responses in advance of the interview, discuss with colleagues, and seek expert advice if necessary.

Another important ethical consideration is to gather information on support available for both the researcher and the participant prior to the interview, and have these readily available during and following the interview. Another consideration to be aware of your limits and expertise and do not give advice, but signpost to information and support. Following several interviews with trainees, I was thankful of family and friends for support.

Prior to the interview participants were aware of what the interview was about, potential question areas and why they had been chosen to take part. This was to provide participants with as much understanding as possible about the interview and to help prepare them as much as possible.

On the information sheets (see appendix 4) participants were given information about support organisations and occupational health. During the interview, the researcher

had these in front of them in case they needed to pass the information on to the participant.

It was decided prior to the interview that any issues of disclosure, such as patient safety issues, during interviews would be discussed with my PhD supervisors (retaining confidentiality) and then if necessary passed on to the relevant party (e.g. HEE regional office). It was stated in the information sheet that confidentiality would be broken if the participant disclosed certain information, such as any serious patient safety issues, abuse or criminal activity.

I was also mindful that if a participant became distressed during an interview I would ask if the participant wanted to terminate or reschedule the interview. If a participant wanted advice, I would ask them to speak with the Specialty Training Manager in the first instance. I would also direct them to Health Education England North East (HEE regional office) Managing Concerns webpage and the British Medical Association (BMA) webpage, which both have helpful information and will signpost them to the most appropriate channel.

Developing rapport with study participants is an important stage for any qualitative researcher, especially during one-off interviews where you do not have the luxury of time and several meetings to build a rapport. The development of rapport can facilitate an honest in depth interview (Willing and Stainton-Rogers, 2008). A good way to help establish rapport, facilitate disclosure, and establish a non-hierarchical relationship is to disclose something of yourself as a researcher. However, this is very personal and needs to be thought about prior to the interviews taking place. The researcher must think about their boundaries in advance and how or what they wish to disclose about themselves.

Prior to the interview, I talked to the participants about what I was going to ask them, about my background as a researcher and some asked if I was a clinician. The fact that I was not seemed to put them at ease, as I was an outsider. I gave them the opportunity to ask me any questions. In this way, I was building up a rapport with my participants and offering something about myself. During the interview some participants would discuss children, maternity leave and childcare and would ask me outright whether I had children (I had already decided prior to the interview that I would be happy to disclose that I had a child) and this helped to build up a rapport and empathy with participants.

Completion of the interview was also a consideration. I was conscious not to leave participants feeling deflated after their interview, especially as they were talking about often sensitive and upsetting times in their lives. Therefore, following the interview, I had an informal chat with the participant to wind down the conversation, end on a chatty informal note, and make sure participants were okay. It would have seemed too abrupt to end the interview and say goodbye straight away and sometimes I talked about other research that reflected some of the things participants were saying, for example about overseas doctors and research on preparedness for practice. On several occasions, I offered to send participants articles from those projects for information as a way of giving them something back.

5.6 Analysis

Interviews were entered into Nvivo 10 software package NVivo (NVivo, 2002), which is a database used for aiding with data management. Once all data was entered into NVivo it was coded line by line for open initial codes.

The interview schedule changed slightly to accommodate some changes in emphasis on some questions following the constant comparison method, which will be discussed below. After conducting seven interviews (3 trainees and 4 trainers) I looked at the transcripts and started to notice that there were patterns coming out of the data and interesting areas to follow up in subsequent interviews from both the trainees' and trainers' perspective. For example, in the trainers' interviews the trainers talked a lot about overseas doctors and a failure to fail culture within training, and trainees talked about part time working as a trainee, and medical culture. These findings were discussed with my supervisors and it was decided to follow up on these areas. The questions were kept the same but additional probes were added to the open questions to facilitate data collection in these subsequent interviews. Themes that had been identified through the coding of initial interviews were explored in follow up interviews to help with theoretical sampling (Stark *et al.*, 2008).

Charmaz (2009) described the complexity of making sense of and interpreting qualitative data and developing a theory in the quote below:

"...thematic studies involve synthesizing data and sorting them into recognizable general categories. Subsequently such studies remain descriptive. Heterogeneity among the research participants, variation of experience and circumstance, comparative analytic methods, and development of an abstract conceptual analysis of the data all point to expanding the number of interviews. The nature of the research topic can also foster increasing the number of interviews. Opening secrets, silences, and liminal spaces likely increase the number of interviews needed..." (Baker, 2014 p21).

5.6.1 Memo writing

Throughout the research, I kept a notebook to write memos or notes about the interviews I conducted in order to help generate a theory. I made notes throughout the interview and would go back through the notes after each interview and make memos about any points to follow up on, or areas of interest. I also made memos during the analysis stages of the research to help with linking and conceptualising my thoughts, and following reading of the literature. These all helped with bringing my theory together and making the process transparent. In this way, there is an audit trail of how my ideas emerged and developed (Stark *et al.*, 2008).

Writing memos or notes is integral to Grounded Theory. They help with the development of your theory and are an important method to make researchers analyse data and organise it into categories early in the research (Charmaz, 2009). Memos help the researcher make the link between data and their emergent theory. They help to show the creative process of a theory development and record feelings that the researcher has about the data, directions and things to follow up or investigate further. Writing a memo can be done from the conceptualisation of a study (Birks & Mills, 2011). Memo writing can be used throughout all stages of your project – conceptual stage, data collection, analysis, literature and development of your theory.

During my analysis it was helpful to ask the following questions devised by Bryant and Charmaz (2010) of my memos and data:

- What's this an example of?
- What's happening here?
- Why is this happening?

- What's missing? (Bryant and Charmaz, 2010)

5.6.2 Coding the data

In constructivist grounded theory there are three main stages of coding followed by the development of the theory which is thinking critically about the data to help me move beyond description and to the next level of thinking.

I used the following method as described by Charmaz (2009 p 49) when coding:

Remain open, stay close to the data, keep codes simple and precise, construct short codes, preserve actions, compare data with data, and move quickly through the data as it helps you spark off ideas.

5.6.2.1 Open or Initial coding

Charmaz (2009) recommends reading your transcripts line by line and labelling each word or sentence that seems relevant as the first stage of coding the data. The researcher continuously looks for information relevant to this category. I used NVivo as a database to manage my initial coding and was rewarded with a long list of codes and sub-codes from my transcripts. At first, all codes seemed relevant. However, I was able to collapse these codes down and it reminded me of what was in the data. By looking at my data in this way, I was able to refocus some of my questions and follow specific lines of enquiry that were occurring regularly.

An important element of grounded theory is to build analysis up from the data so that the researchers are not superimposing their ideas onto the data and the meaning of the data. One of the advantages of coding line by line is that you can compare

viewpoints between data sets. This was useful when looking at the same theme or code but from different perspectives i.e. between trainers and trainees.

An additional advantage of coding line by line is that you are not so immersed in participants' stories that you accept them as given. This was important for my topic of research because the interviews were often sensitive and one could easily be drawn in to the story without standing back and remaining objective and being able to see analytical levels in the data. Charmaz (2009) highlights several questions to think about and reflect upon during analysis of interviews to help see actions and what is happening within the data:

- From whose viewpoint is the data coming from?
- How do the observed social processes emerge? And how do participants construct them?
- What meanings do different participants attribute to the process and how do they talk about it? What do they emphasise? What do they leave out?
- How and when do their meanings and actions concerning the process change? Code actions in the data rather than apply pre-existing categories to the data. Code with words that reflect action. This helps stop the researcher from jumping to theories before all the data has been analysed (Charmaz, 2009).

5.6.2.2 Focused coding

This is the second phase of the coding, once analytical lines of enquiry have been developed through initial coding. These are seen as significant codes. Those codes that come up in your data more often start to emerge, and these can be explored in more depth through larger chunks of data (Charmaz, 2006). These single codes or

categories identified in open coding are then explored and investigated in more depth, for example through additional interviewing or in the literature. This data is used to make sense of and explain the central phenomenon in more depth, for example through exploring links and the context of themes. In this way, it complements other qualitative data analysis such as thematic analysis (Watling and Lingard, 2012). The researcher looks at the phenomena or categories to see what the links and relationships are to help build up the theory and better understand what is happening (Gilbert, 2009). There can be more than one central phenomenon emerging in the data. During my data collection and coding three central categories emerged and were identified: 1) individual, 2) training environment and 3) system factors, which affect progression through training. These three main categories were then explored further during interviews and in the literature to help build up my theory.

5.6.2.3 Theoretical coding

The final stage of a grounded theory approach is making sense of the data that has been collected, generating a theory to help explain what is going on in the data and interpret it. If this stage is not carried out, the researcher would be left with merely a list of themes and so the final stage is critical to generating a grounded theory and explaining what is happening in the data. Once a theory has been constructed from the data it can then be used to explain and formulate recommendations (Gilbert, 1993).

5.6.3 Constant Comparison

Data is collected using an iterative approach where data is collected and analysed to inform the next stage of one's data collection. In this way, data is compared and ideas can be tested and developed throughout the data collection so that the researcher is constantly comparing their data. To achieve this, the researcher must follow the steps below:

- Read transcripts as they are completed
- Be open to and allow for early analytic insights and conceptual ideas to shape ensuing data collection
- Investigate unexpected data (disconfirming cases)
- Investigate interesting data further

These steps were followed during the interviews and analysis of the data. To ensure that constant comparison is happening there are three clear stages outlined by Watling and Lingard (2012).

Stage one: the researcher can use direct probes during interviews, compare occurrences in data, which is applicable to each category, code occurrences in the data, compare data stages and be open to the data shaping the ongoing analysis. In this way the researcher may notice several categories of data emerging that fit existing categories. During the course of the interviews probes were used and added to as the interviews took place and were analysed. Some questions and probes were disregarded as not being relevant. In this way, data was collected, compared and added to the area of interest.

In the second stage of coding data, the use of memos and continuously coding and comparing the data is important. Through comparing the data, the analysis will begin

to change from merely comparing a theme with another theme to attaching a greater meaning to an overall category. This enables the researcher to start to build up a wider understanding of and a better picture of the main categories emerging from the data. It is important that outlier cases be compared with categories that have emerged (Watling and Lingard, 2012). I kept a book to write memos throughout the thesis and these notes and thoughts came in particularly useful during analysis and building up a greater understanding of the core categories that were emerging from my data.

The third stage that Watling and Lingard (2012) outline is developing and defining the theory. There are several features that start to restrict the researcher and help to hone in on what it is that is important and is going to help you answer your research questions and develop your theory. Memos were also useful during the writing of the theoretical stage.

5.6.4 Assumptions

In Grounded Theory the researcher has to understand and discard any pre-existing or *a priori* assumptions that they may have, so that they are only reporting what is coming from the data rather than what they assume (Stark *et al.*, 2007). This is an important stage before starting your research, but the researcher must revisit and question their assumptions throughout their data collection and analysis so as not to bias the data and to stay true to what is emerging from the data.

5.6.4.1 My assumption

I assumed that trainees were not being supported enough during their training and that it was very much a training environment issue e.g. lack of understanding of issues or lack of support. After carrying out the research, I now realise that it is in part the training environment. Moreover, there are other factors within the training environment which can act as barriers to trainees progressing.

However, there are also individual factors such as a trainee's personality, which can act as a barrier to training and accessing the support they require. A third factor identified was a system issue and how society and medical education training can affect a trainee progressing. This third factor was a new factor, which I had not thought about: how society influences the training environment, which impacts on the trainee progressing. All of these factors can work as barriers or enablers to a trainee successfully progressing through their training.

A second assumption was that overseas doctors were not always supported during training and that this would impact on their progression. I had conducted research previously in this area and was very conscious that this should not influence the data and perceptions of the data.

Throughout this research, I have been very conscious to be neutral toward the trainee or the trainers and to present an unbiased fair account. This was difficult when conducting the interviews with trainees because often their accounts of what had led them to receiving an adverse ARCP outcome were very stressful and involved. However, when I was conducting the trainer interviews and hearing their accounts of what they thought the issues were I found myself relating to these. I

hope that I have presented unbiased, neutral and a balanced account of the contributing factors in doctors having difficulty progressing in their training. Data from interviews have been triangulated with both training data and literature and similar themes have emerged, been revised, and strengthened.

What I found very interesting was that some trainers felt that the training system was too lenient on trainees who were having difficulty. I had not previously thought of it from this point of view. However, some trainees may not be 'cut out' to be a doctor. This may be due to their personality and or their cultural background.

5.6.5 Reflexivity

Reflexivity is an important part of Constructivist Grounded Theory in that it helps to inform the researcher of how to conduct the research, and to help the researcher understand their position in the research (Bryant and Charmaz, 2010). A researchers' experiences, assumptions and the knowledge that they bring to the research are all important issues. In addition, how these may influence the research and the way in which the researcher communicates with their participants are also important considerations in Constructivist Grounded Theory (Charmaz, 2006, 2009).

As Carter and Delamont (1996) highlighted, once a researcher has heard or observed painful or angry emotions from a participant they may leave a mark on the researcher. Research is often thought of as one-sided, where respondents 'tell their story' or side of a story. A one-sided relationship is passive and participants are just there to provide the researcher with data according to Carter and Delamont (1996). However, in my interviews respondents felt that they were getting something back by taking part in the interviews. I would often get comments at the end of the interviews

about how they felt to tell me their story or their side of events and hoped that it would make a difference and change things. This made me feel pleased that participants had got something out of the interviews but also left me with a great sense of responsibility that the research would improve training for future trainees. There was a clear motivation from participants for taking part in the interviews. Some commented that they had been galvanized into doing something positive, for example trainees setting up self-directed groups or Facebook pages. Carter and Delamont point out that participants often put their hopes for improvement in their situation onto the research (Carter and Delamont, 1996), as many of my participants seemed to do.

Some work by Dickson-Swift *et al.*, (2009) based on Hochschild (1983) has been done on emotion work theory and relating this to the researchers' experience during the research process. The work looks at emotional labour and emotional work. Emotional labour refers to the emotional management that occurs usually because of face-to-face or direct contact from paid work. Emotional work refers to work which is work related to dealing with other people's emotions (Dickson-Swift *et al.*, 2009). They found that it is important that qualitative researchers view their emotional and cognitive functions as one when conducting research in sensitive areas. The interviews with trainees were often emotional and I was very aware that even though I was doing a job (paid work) it was also emotional work and I was listening to participants' sensitive stories and therefore the 'job' goes beyond that of paid and enters emotional work, where I was taking on the emotional impact of what the participant was telling me.

Empathy is an important skill for researchers to adopt during their research. However, it is important to remain objective and not be too drawn in to the participants' 'story'. I was very conscious of this whilst conducting my interviews with trainees, especially as some of my interviews were very emotional in nature. Hochschild (1983) uses the term 'emotion management' to describe this state of not showing or expressing your true feelings during the interview. Again, I was conscious to manage my emotions appropriately, not show too much empathy, and agree with participants but balance remaining neutral whilst being empathetic. This was often difficult to do and not be drawn into the participants' story and over empathise with what they were saying.

Building rapport with your research participants is important in qualitative research (Dickson-Swift *et al.*, 2009). Therefore, there is a balance for researchers to reach between building rapport but not giving too much information away whilst empathising and managing their emotions. Whilst conducting my research I was actively conscious of trying to maintain professionalism and reaching this balance.

5.7 Strengths and weaknesses of the research

Interviews with the trainees will be based on their assessment and their perspective on events. However, findings from these interviews will be compared and triangulated with findings from the scoping exercise, the literature review and the interviews with trainees and trainers so that the findings can be made more transferable.

The sample used for my interviews with trainees in Phase Three was not 'typical' as it included more white females in the sample than white male trainees. There were

also a small number of overseas graduates and trainees from a black and minority ethnicity. This was unintended and despite trying to recruit additional overseas medical graduate trainees this was not possible, as trainees did not come forward to be interviewed. However, in both my trainer interviews and the literature review both males and overseas trainees were discussed. Once this data had been aggregated and analysed, I feel confident that a fair picture has been presented in the data.

Chapter 6 Findings from the qualitative interviews

6.1 Introduction

This Chapter presents findings from the qualitative interviews with trainees who had received an outcome two (targeted training) or an outcome three (extended training), or in many cases more than one adverse outcome, in their ARCP. It also presents data from trainers.

This chapter explores the contributing factors of trainees receiving adverse outcomes in their ARCP, challenges trainees and trainers face in specialty training and factors which could help mitigate against, or help overcome, difficulties experienced. The data also highlight the differences and similarities between the trainees and trainers on the same issues and the conflict of values and beliefs. These differences in perspectives can have a bearing on how the trainee is supported and whether the trainee takes on board the support and feedback provided. This chapter is presented under the four major categories, which have emerged from the data. These are:

1. Individual factors
2. Training Environment factors
3. System factors
4. Enablers

The following section provides a breakdown of demographics for trainers (n=57) and trainees (n=21).

Table 10: Gender of trainers and trainees

Gender	Trainers (57)	Trainees (21)
Males	30	5
Females	27	16

Table 11: Country of graduation of trainees

Country of graduation	Number of trainees
UK	18 (2 BME)
IMG	3

Table 12: Age categories of trainees

Age categories of trainees	Number of trainees
25-34	14
35-44	7

There were fifteen full time trainees and six less than full time (LTFT) trainees in the sample. All six of the LTFT trainees had dependents at home. Two trainees who worked full time had dependents at home. The majority of trainees (n=18) had received extended training (ARCP outcome 3) as a single outcome or extended training and targeted training (ARCP outcome 2). Three trainees received targeted training (outcome 2) only in their ARCP.

The average length of time trainers had been in service was twelve years, the mean range was between (min) 1 year and (max) 36 years of experience in an educational role.

Quotes in the following section from trainees and trainers are denoted as follows:

Trainees (ID[number] TrEE, gender and broad specialty)

Trainers (ID[number] TrER , gender and broad specialty)

There were three core categories, which emerged from the data: individual factors, training environment and system factors. These are presented in the following three sections. Under each of the three core categories there are sub-categories that are potential barriers to a trainee progressing through their training. Under the barriers are further sub-categories, which explain how the barriers manifest themselves and contribute to trainees having difficulty progressing through their training. These sub categories are ultimately linked to aspirational values, which are expected of a doctor in good medical practice (GMC, Good Medical Practice, 2013), and to cultural and personal values of individuals within the context of medical education training.

The overall core category, which underpins the data, is values. These values can influence the socialisation and professional identity formation of a trainee in to the medical culture. When there is conflict between trainees' personal or cultural values or values learned at medical school and those values expected in the medical culture, difficulties could occur.

The three core categories emerged from the data through the analysis process and the risk factors (sub-categories) fitted within these three core categories. During the constant comparison phase sub-categories (risk factors) emerged which were then

explored further in subsequent interviews with trainees and trainers, which helped to identify the key issues and how these then affected trainees having difficulties.

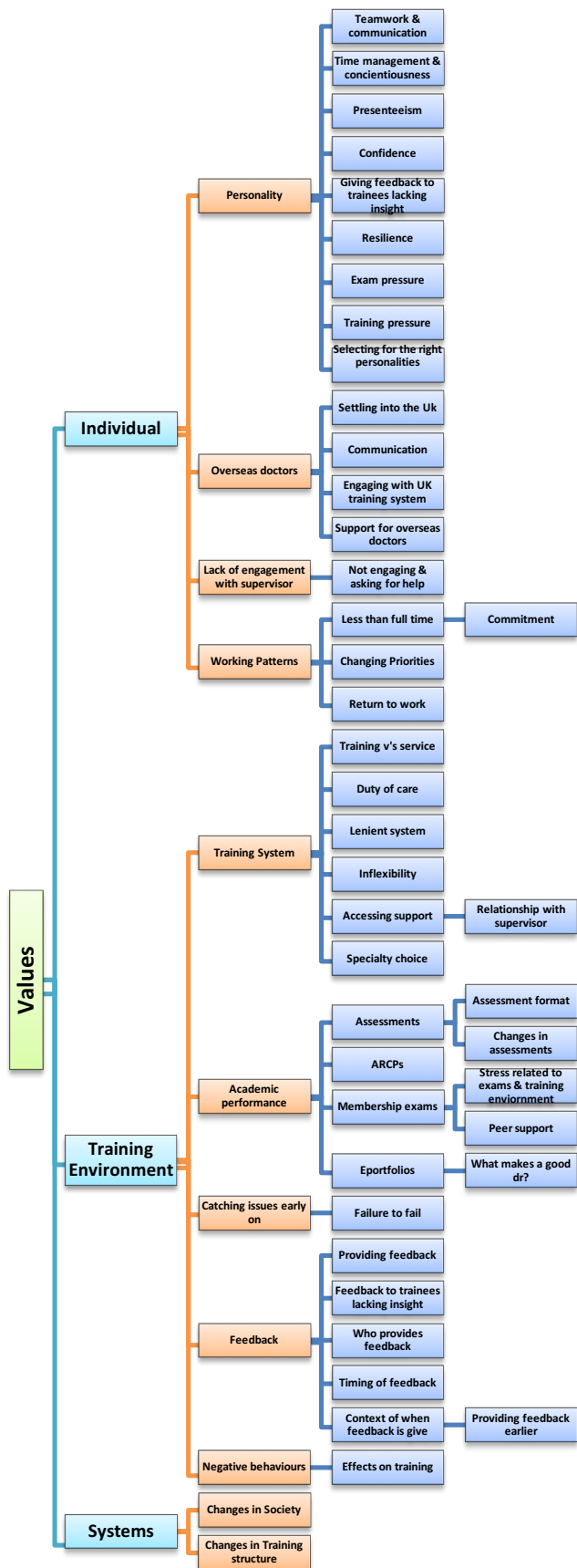


Figure 6 to show the grounded theory coding framework

6.2 Individual Factors

Individual factors were reported that could have an impact on the progression of trainees in their specialty training. There were four sub categories within the overarching individual factors. These were: personality, lack of engagement with support offered, doctors who had graduated overseas and working patterns of trainees. These risk factors were found to be inhibiting factors to trainees progressing in their specialty training.

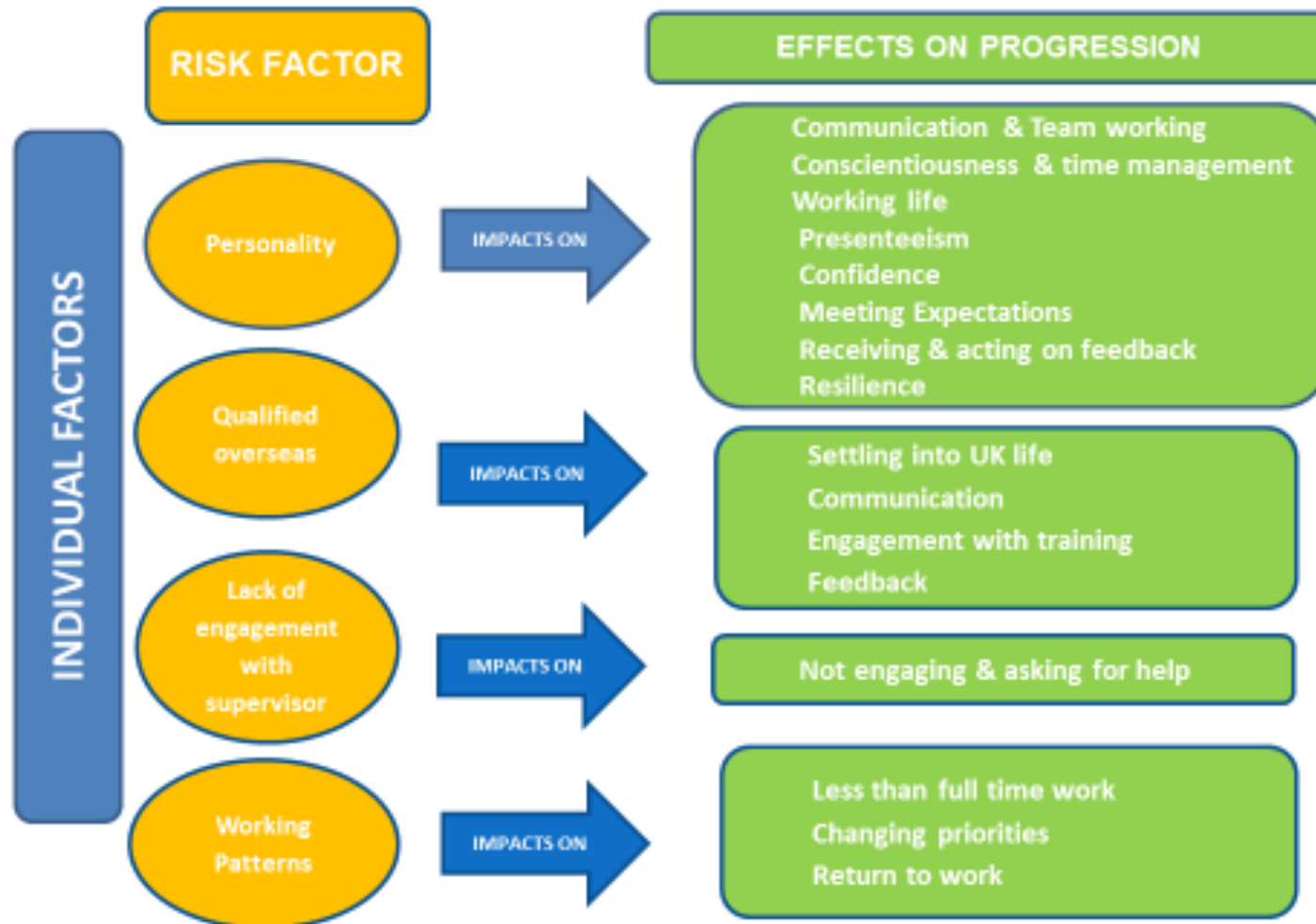
Risk factors may impact on how trainees present themselves and cause an issue, for example, personality type and how this can impact on team working, issues related to confidence (either over or under confidence), conscientiousness or a lack of insight or engagement. Risk factors can also impact on how trainees receive feedback and result in a lack of resilience to deal with failing exams. However, this could also be related to external factors such as a busy training environment.

Trainees who had done their medical degree in a country other than the UK had several additional challenges to overcome. Working less than full time and having dependents at home were also found to be potential contributing factors.

Diagram 4 (on the following page) shows the Grounded Theory coding framework for the core category - Individual factors

Diagram 4: shows the Grounded Theory coding framework for the core category – Individual.

Individual factors



6.2.1 Personality

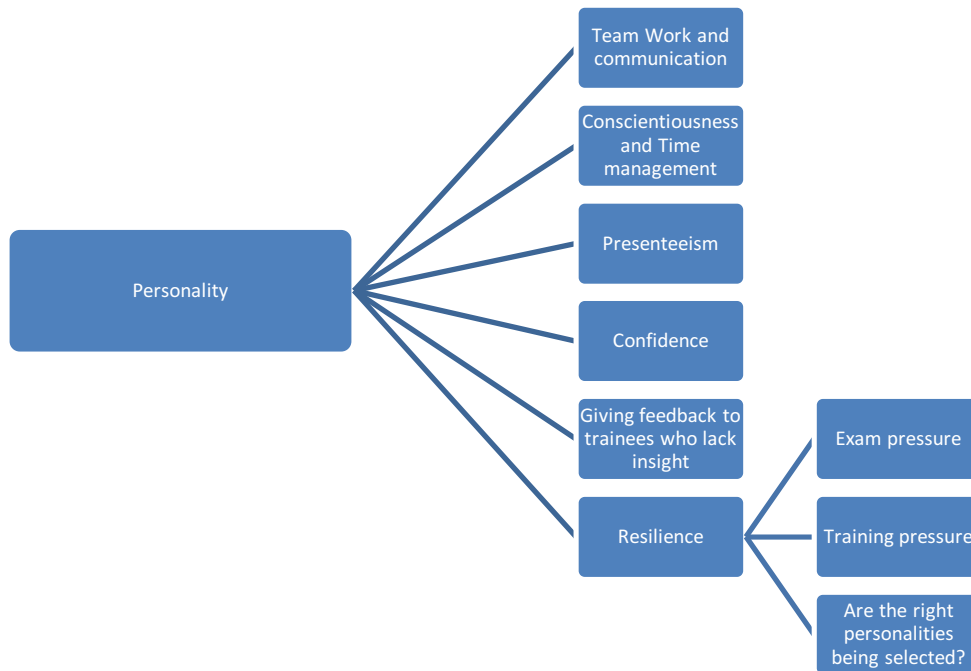


Figure 7 showing the category ‘Personality’ and the sub categories

Personality type was a major category, which reoccurred in the data and was found to be a major factor for trainees progressing through their training.

Trainers reported that personality issues could manifest themselves in many ways, for example in the way a trainee communicates and works within a team. Confidence, being either over or under confident, and conscientious in their day-to-day work was an issue highlighted by both trainees and trainers.

A trainee’s personality seemed related to how resilient they were as a person. Some trainees were reluctant to take time off when they were unwell and this could be related to a trainee’s personality. Trainees may be too conscientious and not want to let their colleagues down when in fact they

should take time off. However, trainees reported that presenteeism was related to the training environment and expectations within the medical culture, not to show any weakness and not to have any time off even if they are unwell.

The following sub categories emerged from the data, which affected doctors having difficulties progressing through their training.

- Team Work and communication
- Conscientiousness and Time management
- Presenteeism (the practice of coming to work despite illness, injury, anxiety, etc., often resulting in reduced productivity)
(<http://www.dictionary.com/browse/presenteeism>)
- Confidence
- Giving feedback to trainees who lack insight
- Resilience
 - Resilience: exam pressure
 - Resilience: training pressure
 - Resilience: Are the right personalities being selected for medicine?

6.2.1.1 Team Work and Communication

Communication, interpersonal skills and good teamwork are paramount to being a doctor. A trainee's personality type was reported to have an impact on how they engaged and interacted with their team and with patients.

Trainers commented that the way a trainee communicated and came across

to other team members, patients and their relatives can have an effect on a trainee's progression, if it was found to be lacking and was not modified.

Some trainers linked lack of communication skills and team working to personality type, including a lack of insight.

“Communication generally tends to be a big downfall that could be a pure personality issue...” (ID35 TrER, male, Surgery)

“My trainee technically was a safe pair of hands but they could not communicate with the patients or with staff or within the team and had no insight into this at all and ended up unfortunately with an ARCP 4 [asked to leave the training scheme] ...” (ID40 TrER, female, Medicine)

“Communication difficulties, team working, relationships with colleagues, again they often get an adverse outcome and they regard that as being unfair rather than it being us trying to help them. They start bucking against the system and thinking the world's out to get them and they can present significant difficulties” (ID27 TrER, male, Surgery)

“Often personality issues are the hardest things to change. It's hard to say to somebody ‘well your personality isn't very popular’. When you are leading a team and you're in a pressurised environment if you don't get on with people and everyone thinks you are absolutely naff...it's really hard to change that behaviour. That's a different sort of thing from a lack of insight and decision making which is more specific” (ID21 TrER, male Surgery)

6.2.1.2 Conscientiousness and Time management

Trainers reported that there were issues around doctors not conducting themselves in a conscientious manner and not taking a professional approach to their learning. Trainers reported that some trainees had issues around time management and lacked a positive attitude to their work and colleagues. This could show a lack of commitment to medicine.

“It’s just a general tone, you know you ask trainees to do something and you get a no more times than you get a yes” (ID24 TrER; male, Surgery)

“Doctors come late and not having the right attitude to their work. Maybe sometimes being rude to nurses, I’m thinking more behavioural issues here. I think lateness can be ignored but I don’t think it should because it’s about certain principles and values you need to have, because in future you’ll be role models to junior doctors...it’s also about being a team player...” (ID51 TrER; female, Medicine)

“It’s usually things like timekeeping and documentation and occasionally what they’re wearing, things like that. Professionalism items that often makes someone in a more difficult position...to pick up in general and evidence exactly...” (ID26 TrER; female, Medicine)

“Performance issues like you know, attendance and not getting work done in time, just not paying attention to, you know, the career, not turning up for meetings, not turning up for training, these sorts of things” (ID31 TrER; female, Medicine)

Several trainers highlighted time management and taking responsibility for one's own learning as areas that were often lacking in trainees who were underperforming. Trainers mentioned issues about a clock watching mentality and having the wrong attitude to learning. However, trainees are mindful about the number of hours they are legally able to work, in line with the requirements of the European Working Time Directive (EWTD). They may have competing values, such as childcare or carer commitments.

“It’s like my job starts at eight o’clock, my job finishes at five o’clock...they are watching the clock but when I tell them to come in early and spend time with patients, an extra few minutes, talk to them and don’t be in a rush. Try to spend an extra few minutes so you get more information. Come in early to operations. It just makes sense and better than if you are in a rush, you tend to make mistakes...” (ID18 TrER; female, Medicine)

“Some trainees who work very hard and you have some where you have to guide them a little...I would like you to turn up, a bit of enthusiasm please and I’m not expecting you to stay past 5 but I would like you here at least until 4.30pm please” (ID24 TrER; female, Medicine)

6.2.1.3 Presenteeism

Issues related to presenteeism were evident in trainees who were reluctant to take time off when they were unwell, or following a bereavement. This may be because of their own reluctance to take time off or about their perception regarding about the culture and expectations of the workplace. It may also be

linked to the GMC requirement that they would be made to repeat the year of training if they have four weeks out of their training. It could also be linked to the medical cultural values and expectations within the workplace. Both trainers and trainees reported on this area. Trainers commented that it was very much a perception of trainees that they could not take time off. Whereas, trainees reported that it was definitely frowned upon or seen as a sign of weakness to take time off.

“A perception amongst trainees that you know, this feeling of being present all the time and that you have to keep going no matter what...” (ID55 TrER; female, Medicine)

“I think there is definitely this perception that as a doctor you should just be able to be able to cope with bereavement and just get on with it because we deal with dying people all the time and I felt that I should just be able to cope with it” (ID11 TrEE; female, Medicine)

Several trainees commented that they felt that they were letting their colleagues down if they took time off. This then added pressure to not take time off work. Trainees commented on their work environment being very busy and that they were often short staffed, which was an added pressure that trainees felt. There was also an overriding personal expectation that their patients' needs came above their own needs and wants. This could arguably be seen as professionalism and is a value expected in good medical practice. However, it is equally important and professional to recognise when you are not able to operate to the best of your ability, for example because you are unwell or grieving. Taking responsibility for one's

own health and having insight into when health could impact negatively on patient safety is equally important and an expected value in good medical practice.

This perception of the culture of the medical environment is in conflict with the values required in good medical practice, such as taking responsibility for recognising when one's own health could affect others. The question is, is it the over conscientiousness of individuals or is it the culture and environment that is the barrier to trainees taking time off when required?

Not taking time off when it is needed may result in increased amounts of stress and ultimately lead to burnout.

"I felt so anxious, I was bereaved, I was upset...all I wanted to do was go home but because you feel like you need to stay because of your clinical responsibilities, I stayed at work. I felt under pressure to stay at work really because they were like oh I see you've got clinic" (ID29 TrEE; female, Medicine)

Some trainees commented that it was not always acceptable within the medical culture to show any sign of weakness. This perception of medical culture needs to be changed to make it acceptable for trainees to have the time off they require.

"You have to be pretty focused and ambitious to do this career and they are all like that and I don't think there is necessarily the understanding for people who have gone through a hard time. You're

*expected to be pretty tough and to just forge ahead regardless” (ID16
TrEE; female, Medicine)*

*“You’re supposed to be this machine that just doesn’t really have any
feelings I think and yeah, it’s difficult to get much sympathy from
anybody really in that situation, I carried on for a few months then all
of a sudden I was incredibly depressed...I made my own appointment
to see Occupational Health...had a bit of a breather but I was aware
for the department that I was a hindrance very much to them...” (ID19
TrEE; female, Medicine)*

6.2.1.4 Confidence

Several trainers highlighted that confidence was another factor related to personality that could be a barrier to progression through training. Some trainees can be either over or under confident; this can sometimes be difficult to detect, especially if trainees appear to be overconfident.

Appearing over confident

Over confidence can present itself in several ways, for example an increase in bravado, or thinking they know better than other senior staff. Trainees may score themselves higher than appropriate on assessments and think that they know more than they do. Some trainers again linked this to personality type, for example being arrogant or dogmatic.

*“A lot of trainees I find who become a problem are over confident and
don’t engage properly because they feel they don’t really need to.
That’s my take on it. They perhaps make decisions they’re not*

confident to do, they are a bit too dogmatic, they think they are better than the consultant sometimes...I think it may be a personality thing actually but it's variable obviously" (ID39 TrER; male, Surgery)

"I think sometimes people will be more confident than they appear so they sort of took up a bravado in order to kind of hide things and so it might be harder to see their failings" (ID28 TrER; female, Medicine)

"I think the trainees that I've seen that really are struggling tend to, some of them tend to score themselves much higher than other people would score them and they're the ones I worry about. There are trainees who give themselves much lower scores and other people give them higher scores you know, so it's, it's never just one kind of difficulty you know, they are all humans really" (ID33 TrER; female, Medicine)

"Hyper inflated view of their own abilities and weren't listening, so there was a degree of arrogance which is very difficult because surgeons, there is fine dividing line between confidence and arrogance because you've got to be confident in your own ability to hold a knife and attack someone but at the same time arrogance where you are not prepared to learn, which is where the dividing line comes" (ID50 TrER; male, Surgery)

Appearing under confident

Equally, if a trainee lacks confidence this can also lead to them having issues in their training. They may lack assertiveness and check their work constantly. However, this can often be rectified if the trainer understands that confidence is the issue and is prepared to support the trainee and also has the time to support them.

“In other words they have no confidence. That might just be they have no confidence because they are not particularly good, and struggled with the whole thing. No confidence, therefore not assertive it’s a vicious circle, or just generally in life they don’t have confidence. It’s trying to bring them forward and show them they are capable and we try to do that” (ID19 TrER; male, Medicine)

“... You get a small number of people who are much better than they think they are. A bit low on confidence but that is easy to correct because it’s a real positive scenario. To go in and say ‘you know you are much better than you think you are we need to give you a bit more freedom to build your confidence up’. But you can’t do it the other way round, you can’t let people hear you say ‘you are under skilled’ and you can’t give them more room” (ID35 TrER; male, Surgery)

“[Talking about an unsupportive placement returning from maternity leave] ...set me back in terms of confidence...I thought I’ve got some clinical experience but I could have learned a lot more” (ID28 TrEE; female, Medicine)

As regards confidence, there was a difference in perspective between trainees and trainers. Trainees commented that their under confidence was often linked to something external to their work/training and their perceived lack of support and understanding of those issues around them in the work place, rather than their personality. This conflict of understanding could impact on the uptake of feedback and remediation if trainees do not feel that they have an issue with confidence but that it is the work environment that is at fault.

6.2.1.5 Giving feedback to trainees who lack insight

Trainers identified that one of the main challenges of giving feedback was that trainees often lacked insight into their difficulties and were not willing to perceive any feedback provided as helpful. Many trainers expressed how difficult it was to provide feedback or support for doctors who were experiencing difficulties. This was especially the case when trainees lacked insight into their problems. Trainers are trained primarily in clinical skills rather than as managers and educators. Sometimes these additional skills of providing challenging feedback did not fit comfortably or come easily for trainers.

“They [trainees] feel very hard done to and very angry about it often or very upset and again some respond to that and some don’t and for some of the people who have deeply set behavioural issues or attitudinal issues they’re very difficult to change when the trainee is sort of in their late twenties or thirties” (ID4 TrER; male, Surgery)

“I’ve had people because of lack of insight have continued to repeat behaviours which are not always appropriate. Sometimes it’s lack of knowledge and skills but often it’s not those basics that are lacking, it’s the finer attributes like time management or management of a team...” (ID16 TrER; female, Medicine)

Trainers commented that there were often differences in perceptions about what was meant by feedback. For example, what trainers perceived as constructive feedback was perceived by trainees as critical. However, this difference in perception may be due to a lack of insight on the trainees’ behalf or the way that feedback is provided.

“I’ve had one trainee who was struggling with time and with prioritising clinical tasks. Took even helpful, what were meant to be helpful, suggestions were taken as being critical” (ID33 TrER; female, Medicine)

“It still feels quite a challenge to give a trainee what you perceive to be feedback and what they perceive to be negative feedback” (ID17 TrER; female, Medicine)

Several trainers felt that experience of being an educational supervisor was valuable when dealing with trainees who lacked insight. It was felt to be particularly difficult to address any problems and take any action when the trainee did not recognise that they had a problem.

“I think insight is one of the hardest things isn’t it? And the trainees that cause the biggest headaches are the trainees with a lack of

insight, and I think that's very, very, very difficult to work with a trainee that really doesn't have insight into what the issues are... it takes really quite an experienced supervisor to make someone more insightful, more reflective..." (ID23 TrER; female, Specialty unknown)

"Where the real problems start is where you know you have someone who either doesn't have insight or doesn't have the honesty to accept failings, their limitations, the things that were less than ideal. So you know if you have honesty and insight, or sometimes the two blur in to each other because then trainees are going to struggle and it becomes not just a struggle but a struggle to help them..." (ID6 TrER; male, Surgery)

"They absolutely don't always have insight I mean it's often the hardest problem when you've got a trainee who doesn't have insight ... it's often the hardest, trainees in difficulty to deal with who don't have insight" (ID47 TrER; male, Medicine)

Trainers reported that sometimes trainees were not willing to accept that they were not ready technically to undertake a certain skill or sometimes did not think they needed to learn a skill.

"You've got to think have they got the technical skills to do that and is it the appropriate that they do that then you say no and some trainees will accept 'yes, I'm not ready to do this, other trainees will get upset" (ID13 TrER; male, Medicine)

6.2.1.6 Resilience

A small number of trainees commented on the role reversal from being a doctor to being the patient or the relative of a patient when they are unwell or someone close to them is unwell. Recognising and being able to manage this is very important for a trainee's mental wellbeing. It is important to have access to support to help with this process of being able to recognise when they are feeling stressed or overwhelmed and to build up their own individual resilience and coping strategies, especially in the first few years of training.

“One of the things I found hard was going from during the day I was the doctor talking to patients’ relatives breaking bad news and then at night you go home and you’re that relative. If that makes sense, it’s that role switch. When you’re starting out as a doctor, maybe it’s different when you’re a consultant you’ve been a doctor for 20 years, but when you’ve only been a doctor for 3-4 years trying to get your head around that is actually really difficult and you don’t really know what your role is. I’d never been in this situation before where I’d never experienced stress and anxiety before and so I didn’t really recognise that, like I said to you at the start I thought I was being a bad doctor and losing the plot but actually I was just grieving and I just needed someone to say that” (ID11 TrEE; female, Medicine)

Resilience: Exam failure

Both trainers and trainees commented on the competitiveness of the training environment. Trainers felt that trainees often lacked resilience and were not always used to experiencing difficulties such as exam failure or the changing pressures of the job.

Medical trainees are high achievers and if they start to experience difficulty, for example through failing their membership exams, then they often find it difficult to cope. Both trainers and trainees commented that as doctors they recognise that they are high achievers and not used to failing. Often trainees may never have previously failed at anything. If trainees fail either their membership exams or their ARCP this can have an effect on some trainees' confidence and self-esteem and affect their resilience.

“So we have difficult exams and several trainees have failed it recurrently and these are you know very bright successful people who aren't used to failing at things and it takes 6 months you've got to get over it and revise again. Those trainees you can sometimes see them being ground down or becoming depressed...” (ID7 TrER; female, Medicine)

“Competitive people who probably have been successful all their lives, passed exams you know done well at school and you know often not accustomed to dealing with failure and the emotions that come with that. Obviously that has an impact I think” (ID6 TrER; male, Surgery)

“We’re all achievers aren’t we, and it was the first time that I’d been told it’s not good enough and you know sort of confidence wise that does knock you quite a lot and if that’s something you’re struggling with anyway, you know it can make you feel a bit sort of like, well nothing I seem to do is good enough” (ID12 TrEE; female, Medicine)

Resilience: Training pressure

The onus of the individual having or lacking resilience does not take into account the context in which the individual trainee works. Therefore, the training environment and the wider systems could also have an impact on the resilience of a trainee. Medical training is a highly competitive environment, which adds additional pressures on the individual trainee to do well. Trainees often work in busy, changeable, stressful environments with high expectations put upon them (either by themselves or the culture), which can also have an effect on their resilience.

“So I think the actual training environment and the pressures on the trainees has changed quite a lot, and I’m not sure how well prepared they are for that when they leave medical school and Foundation school” (ID17 TrER; female, Medicine)

“[ambitious] it’s certain departments and the other trainees. It’s like a competition in who is the best and who can get the exams quickest” (ID16 TrEE; female, Medicine)

Resilience: Are the right personalities being selected for medicine?

Trainers suggested that the personality type of trainees who are being selected and recruited to medicine, whilst very intelligent academically, may be lacking in emotional intelligence. There needs to be a mix of personality types selected and not just someone who is academically bright because being a doctor is not just passing exams and having the knowledge.

“You know the kind of people that become doctors, and I suppose that could be part of it, and I think in the way that we’re sort of built up at university to believe, you know that we’re kind of special...if they have to repeat a year they take that very hard actually...I think it goes back to sort of personality issue...you know people who’ve academically been very capable and have managed to get through all of the exams but struggled in this sense with the ARCP are finding things more difficult...” (ID33 TrER; female, Medicine)

“The emotional intelligence bit of being resilient to see how local graduates how local medical schooling allows people to be more aware of reading others and how to reciprocate that. So that emotional intelligence I find it fascinating that those who are very successful who are absolutely galloping ahead you can see there’s a marked difference while these are extremely intelligent guys or girls who are coming through but because of their situational awareness they probably find themselves slightly at a disadvantage and that takes some time” (ID22 TrER; male, Medicine)

6.2.2 Overseas doctors

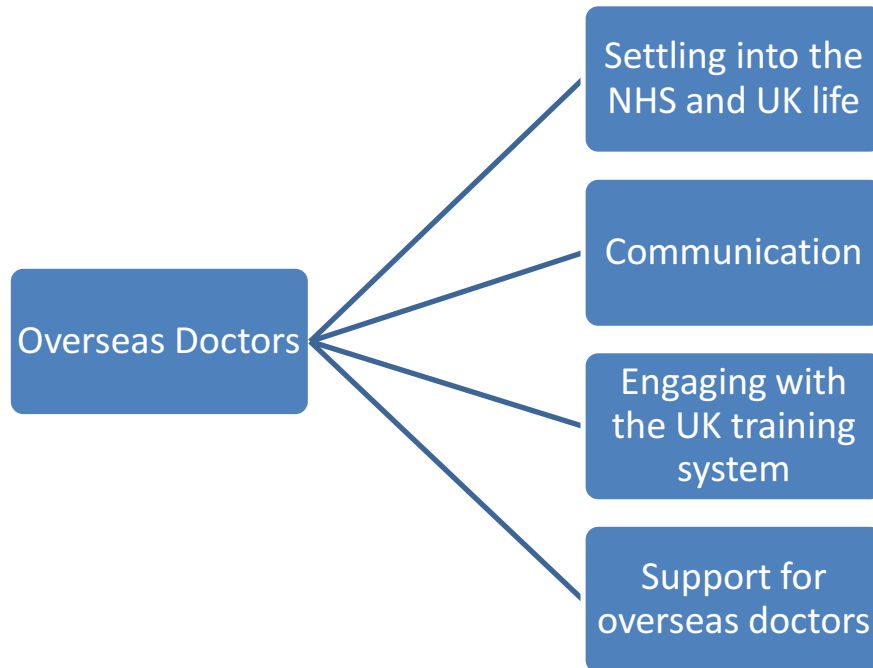


Figure 8: shows the category ‘Overseas doctors’ and the sub-categories

This section presents data related to overseas doctors, which was one of the categories that emerged from the data. The category of ‘Overseas doctors’ (both EU and non EU) has reoccurred in all of three phases of data collection in this thesis. Overseas qualified doctors were found to be more likely to fail their ARCPs in the outcome data interrogated during the scoping exercise and were also highlighted in the literature as having difficulties in their training. During the first few interviews, overseas doctors were reported as having difficulties in their training. It was decided that a question on whether trainers felt that overseas doctors had difficulties would be specifically asked of trainers. In addition, further recruitment of overseas trainees also took place.

The following sub themes emerged from the data, which affected doctors having difficulties progressing through their training.

- Settling into the NHS and life in the UK
- Communication
- Engaging with the UK training system
- Support for overseas doctors

6.2.2.1 Settling into the NHS and life in the UK

Many trainers reported that they thought doctors who had graduated from overseas experienced the same issues as UK doctors but also had several additional issues to overcome during their training that could impact on their progression in training. These issues were often related to trainees completing their medical undergraduate training in a different culture to the UK, often one with competing cultural values and beliefs to those of the UK medical culture. This was the case for doctors who had graduated from both EU countries and non-EU countries. Cultural differences that trainers commented on were: communication, duties of a doctor, engagement with training and receiving feedback. This was felt to be a result of experiencing different healthcare systems which were often more hierarchical, with differences in team working and responsibilities within the teams. Many of the difficulties experienced by overseas trainees were related to non-technical skills, for example communication, engaging with training and teamwork.

“I think trainees from overseas, we’ve often had cultural differences. Issues about professionalism, behaviours in teams, decision-making, responsibilities. I think a lot of them have struggled with engaging with educational supervision activities and you know...also receiving feedback, acting on feedback...a lot of the issues are down to non-technical skills really...” (ID17 TrER; female, Medicine)

“I would like to discuss trainees from overseas. That area needs to be looked at because trainees from overseas come from a different culture so their training needs may be different in that the softer skills need to be beefed up well ahead...” (ID41 TrER; male, Medicine)

Trainees also commented on acculturation differences, which needed to be understood and overcome in training.

“It’s as difficult for us as overseas trainees because the culture is completely different, the background is completely different and some behaviours and some ways when you use them you feel like according to my background I feel like they are normal but for some people here they are not, and sometimes I perceive this stuff from other people, rude, but it’s normal for the culture here” (ID26 TrEE; female, Medicine)

Trainers and trainees commented that for doctors who have moved to the UK for the first time and have not trained in the UK it is a big transition and can present certain challenges. These challenges were not just related to the workplace but also to differences in lifestyle and practical issues, such as

opening bank accounts, finding accommodation and schools for their children.

“People coming to a different country and not being aware of, I guess both NHS systems, NHS training structures but of equally opening a bank account or something as simple as that” (ID47 TrER; male, Medicine)

“the transition is not just the training to be honest the lifestyle itself...the language. Yes all of them were a challenge for me but I think I have good support...” (ID27 TrEE; female, Medicine)

6.2.2.2 Communication

Trainers reported that issues related to communication were seen as a challenging area for some overseas graduated doctors. This was related to language, accents and the way that trainees presented themselves in conversation. Some trainers felt this was one of the biggest challenges to overcome.

“Communication that is the biggest challenge...so when you are talking to them...there are two extremes either they can be seen to be very abrupt or very direct and can be perceived as being sort of not polite. But actually sometimes this is the lot who are much more vulnerable so they swing between that extreme of coming across as being direct to being extremely quiet” (ID22 TrER; male, Medicine)

“I think some, and this isn’t meant to be a racist comment, but some overseas graduates struggle simply because of language difficulties, and again if you’re not confident communicating then that’s going to affect the way you work” (ID19 TrER; male, Medicine)

Some trainers and trainees commented that language and communication issues could be challenging in a clinical environment. Overseas graduates may also be more reticent in asking for help or may not fully understand the language and cultural nuances because they have been brought up and taught in a different culture and medical system.

“They start off thinking the culture is the same...they don’t ask for help early on, either when they are personally in difficulty or the patient is in difficulty. There’s a clinical safety issue here. They are almost afraid of asking” (ID41 TrER; male, Medicine)

“You can see these guys often struggling with language problems; you know colloquialisms, cultural anomalies. I suppose which makes the practice of something as culturally specific as psychiatry quite challenging” (ID48 TrER; male, Medicine)

6.2.2.3 Engaging with the UK training system

Several trainers mentioned giving feedback to trainees who had graduated from overseas. Some trainers commented that understanding about why feedback is given and that it is there to support and develop trainees was not always clear to trainees. This was because they may not have been brought up in a culture and environment that delivered feedback, or feedback was

delivered in a different way to the UK style. Trainers commented that they often found it difficult to provide challenging feedback to overseas-trained doctors because they did not realise that it was meant constructively and to help them with their development.

“They don’t know how to take feedback on how to improve their way of working, so if it’s a UK graduate equally he’d get a bit of feedback saying that he wasn’t working right, he would understand and basically the doctors who have not been trained in the UK would not understand what the feedback meant...in a way that would explain why the GMC has more complaints about foreign graduates than the other graduates and I think that’s the major reason” (ID36 TrER; male, Medicine)

“People don’t like giving bad feedback, and especially when it’s a doctor from abroad. I think people feel a bit awkward about giving feedback about people’s communication skills and their cultural awareness because nobody likes to be thought of as being prejudiced or in any way discriminating, but I think it’s like the elephant in the room sometimes ...so by avoiding the situation you’re actually kind of making it worse” (ID38 TrER; male, Medicine)

“I’ve had some very interesting experiences, one very, very good trainee but who didn’t like feedback, overseas trainee I’m talking about, who didn’t like me telling [them] how things could be done differently, she said I think you’re being very patronising. So, and then a lot of my sort of local graduates who have come up and when you

give them feedback most of them totally see where I'm coming from"

(ID22 TrER; male, Medicine)

There were also issues raised about cultural differences in gender and how this impacted upon team working and feedback.

"There's things like taking feedback from a woman versus a man, and whether it's a male or female trainee. I think it's also, we had an issue with a trainee taking feedback or direction from nursing staff...some of them [nursing staff] are very experienced...I think it's a different system" (ID17 TrER; female, Medicine)

"They might have come from a different healthcare system where maybe it's more male orientated and maybe in different systems how the nursing colleagues are treated. That can be quite tough sometimes if you see that they are very early on in their training in the UK" (ID51 TrER; female, Medicine)

Trainers also commented that there were sometimes issues around understanding and meeting training expectations. This may be explained by cultural dissonance or by trainees showing a lack of commitment to their training. This may be because they are demotivated in their training. For example, they may be in the wrong specialty or feel isolated or homesick. It may also be that they did not choose to have a career in medicine.

“I had a doctor from [EU country] and he just didn’t really engage in terms of his attendance to work, he had lots of time off sick leave after weekends, where we presumed he was flying back home” (ID29 TrER; female, Medicine)

Trainers commented that collecting evidence for the portfolio was often a new challenge that overseas trainees faced because it was a new training system, which they had not experienced previously, and they did not realise the importance of completing portfolios.

“But because she was coming from a different background she hadn’t perhaps been attaching the same level of importance, making sure all the evidence was properly documented as perhaps a trainee who had grown up in the system might have done” (ID25 TrER; female, Medicine)

“I found in psychiatry we get a lot of doctors who are from overseas and I found some of them took longer to adjust to working in the NHS and just sort of understanding how the system worked...the main difficulties I have with trainees is the organisation wanting to do a good job but not necessarily putting the evidence in that they need to put in” (ID33 TrER; female, Medicine)

Trainees also observed that trainees who had not been through a UK training system sometimes found it difficult to understand what was required of them, for example collecting evidence for a portfolio.

“A lot of people who hadn’t come through sort of the UK and things were completely lost and it [portfolio] was never explained to them”
(ID14 TrEE; female, Medicine)

6.2.2.4 Support for overseas graduated doctors

There was a general feeling from trainers that trainees who had graduated from overseas were well supported. However, it was thought that there was a fine balance between trainers being encouraging and supportive to help build a trainee’s confidence and enable them to flourish and being over critical, which can create an atmosphere within the team and undermine the trainee.

“...She did do some revision for her exam which did help, it helped her grow in confidence and with the support of extra training she has had a successful ARCP so she’s back on track...she wanted to be a good doctor” (ID29 TrER; female, Medicine)

“...I suppose the whole team needs to be a bit more on their toes...the problem with this is that the trainee might be completely clinically sound but it breeds a feeling within the team that they might not know what they’re doing...takes longer to build up trust...” (ID38 TrER; male, Medicine)

Some trainers and trainees reported that whilst there were issues related directly to the working environment there were also additional issues related to life outside work, for example, a lack of family support.

“...they may or may not have their families with them so there is quite a lot of pastoral care required ...” (ID21 TrER; male, Surgery)

“I think not having family support might add to the problem, especially when you have kids...in my culture [non-UK] men don't do anything domestic” (ID25 TrEE; female, Medicine)

Some trainers commented that they thought that this difference in training needs to be recognised and addressed, especially around the non-clinical skills but also around the additional time and understanding for trainers to help fully support overseas trainees.

“We've employed them we've said yep you are alright to come and work here, you're completely fine but how are we expecting them to just jump off at the same point as someone that's trained as a medical student in the same city that they're starting to work in. It doesn't seem fair really...but at the same time it's not like we are given five additional hours that week to talk them through it. You are given the same amount of time to train this person as someone else who has trained [in the UK] and it's not the same” (ID38 TrER; male, Medicine)

6.2.3 Lack of engagement with supervisors

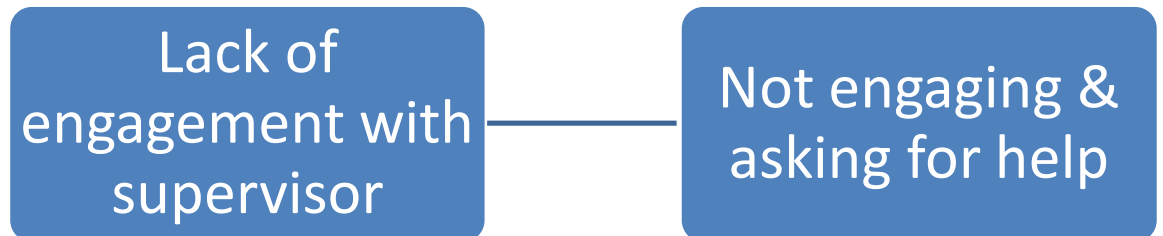


Figure 9 showing the lack of engagement with supervisors

Some trainers reported that they were not always aware of issues trainees were experiencing. Trainers were often dependent upon the trainee telling them when they were having difficulties, which did not always happen, either because of a perceived stigma attached to showing weakness and asking for help or because they did not have a good relationship with their supervisors.

6.2.3.1 Not engaging and asking for help

Trainers commented that often trainees who were underperforming did not want to disclose any issues and seek support. If trainees did not ask for help this made it very difficult for trainers to support and address any difficulties that trainees may be experiencing.

“Obviously trainees come in all shapes and sizes with lots of other problems associated, that may be those who’ve got medical or mental health needs and again sometimes a trainer isn’t aware of those problems, and they’re not always something a trainee wants to bring up” (ID16 TrER; female, Medicine)

“We’ve had a trainee in the department who had differing needs and they didn’t want anybody to know about it and that makes it more difficult for them to engage with getting appropriate help, so it can be difficult from that point of view” (ID20 TrER; female, Medicine)

“You phone me that’s the right thing to do what’s the problem and I’ll sort it out... You worry about the trainees who don’t ask for help because you have no ability to change the outcome in that situation. It’s quite a good discriminator of good and bad trainees” (ID35 TrER; male, Surgery)

Trainers recognised that there is still a perceived stigma attached to trainees having trouble, which makes it challenging when they require help and support. However, trainers felt that this perception is slowly changing. Some trainers commented on looking at the rigorous training system it was also

important to understand that some trainees experience burnout or become discouraged during their training.

“There’s still a stigma attached to it ...hopefully that is changing now because there are far more trainees accessing services” (ID17 TrER; female, Medicine)

“It’s very negative because not doing well at something doesn’t mean you’re bad, it just means you need a bit of training but the way the system is set up, it’s if you are put back a year then there’s a problem with you...nobody looks at the system and says why has this happened?” (ID13 TrER; male, Medicine)

“I think a lot of them are perceived as failures as they haven’t gone through certain hoops at a certain time and I just think it’s wrong. There’s a shortage of trainees and yet the fact they’re trying to discard trainees at every opportunity, some get through but some just get disheartened” (ID19 TrER; male, Medicine)

The perception of asking for help and showing weakness and being stigmatised was also reflected by trainees. They commented that there was often a perception that if trainees are viewed as struggling then this can have negative implications for them with their peers and within the medical culture.

“I would say ‘oh everyone will know I had an outcome three because my training has been five and a half years rather than the five, therefore they will all know that I failed part of my training’ and therefore there would be that negative stigma that I had to have my

training prolonged because I wasn't good enough" (ID15 TrEE; male, Medicine)

However, the majority of trainees who had experienced difficulties and had sought help thought that this had not been the case for them. Trainees highlighted the importance of talking to someone and asking for support. It was also seen as important to try to break down the perception that because you are a doctor you are somehow immune to having difficulties. Feeling valued and having someone take the time to understand and support them was seen as invaluable by trainees.

"Thinking I am going to get thrown on the scrap heap, and what was really important never at any point did anyone involved with the ... School ...make me feel like that and it was all, it was very positive, any kind of negative feeling towards it were all in my head" (ID31 TrEE; male, Medicine)

"Talk to people, even if you think you must be the worst doctor in the world because you're struggling, you know you're not, you are not a bad doctor because you are struggling, you're a human being that just needs a little bit of a hand" (ID14 TrEE; female, Medicine)

"I would encourage anyone who's got any sort of problems to speak to people, and go through that route because I know the support I got was valuable and it's certainly not viewed as a negative thing by anybody. I think that is always the risk among trainees to perform, that if I go in and say I'm not coping they're going to think I'm a weak

trainee but certainly from the consultants I've met that's not been an issue" (ID22 TrEE; male, Medicine)

6.2.4 Working Patterns

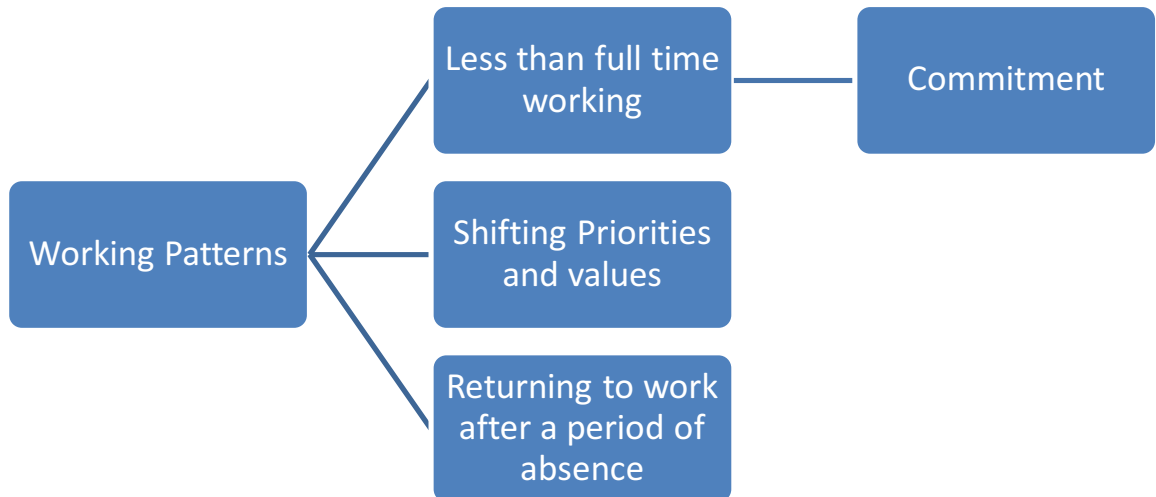


Figure 10 shows the category 'Working Patterns' and the sub-categories

The following section presents data related to working patterns, part time or less than full time working or trainees coming back to work after maternity leave or a period of absence. These working patterns were found to have an effect on trainees progressing through their training. It became apparent through interviewing both trainees and trainers that working patterns and working less than full time was an emerging category. Therefore, questions related to these areas were explored in subsequent interviews with trainers and trainees.

The following sub-categories emerged from the data, which affected doctors having difficulties progressing through their training.

- Less than full time working
 - Commitment
- Shifting priorities and values
- Returning to work after a period of absence

6.2.4.1 Less than full time working

There were several issues reported by trainees themselves, which were related to trainees (often females) working less than full time, which was usually to accommodate childcare commitments. Trainees commented that it was often harder to fit their workload in or that it was difficult to get their assessments signed off in their allocated work time when they worked less than full time. Trainees also felt that when they worked less than full time there was an unrealistic expectation of work, which added to the pressure they felt.

“Well there’s a lot I can’t take home cause much of it is confidential and patient sensitive data. So much of it just gets squeezed in lunch breaks, the days when I’m not doing the nursery run, it’s interesting, when we say, balance” (ID10 TrEE; female, Medicine)

“It is more difficult because I am part-time because it takes a lot of time and your personal time and when you’ve got young kids... because it takes a lot of time every time for the ARCP ... I still have to

use some of my working time, my personal time doesn't expand enough, when you've got young kids, so I have to do and then I've got my work, you know I can be late and then I have to, to work extra time after the ARCP and so it is an issue yes, I mean I find it really hard"
(ID30 TrEE; female, Medicine)

"I'm part time and the clinical pressure is much greater, somebody who is there all week, nine to five, they have the same number of patients coming to see them as I do and I'm only there half the time and so I think the non-clinical aspects of the job always get massively pushed...I always have the feeling that it's harder for me to get stuff done but then I've got longer to get it done, so there's the other side of the coin" (ID28 TrEE; female, Medicine)

There was a sense from trainees that if you worked less than full time you were seen as less committed to your training and to being a doctor.

"Like I remember a couple of weeks ago at work somebody had to leave for child care reasons but there was a like an accident that had come into A&E, there was two other registrars ... but the one that had to leave was the one that I think should of technically gone to the call and that person had asked somebody else to go for them and the other registrars were complaining that she wasn't committed and that, how dare she just go, it was four o'clock which is the time you're supposed to leave ...and I thought well actually nobody is going to pick the child up from the school gates ...there was plenty of cover

there...she shouldn't be feeling guilty for not staying. She should feel that actually that's fine" (ID29 TrEE; female, Medicine)

"I found it particularly difficult when I came back as part time... it's almost like if you work part time people see you as working for the three days a week and then having two days a week off and I'm trying to, ... I'm off work because that's not my free time to give to you and it's not free time that I would like to come in to do my e-portfolio with you it's. That's my time that I'm actually doing another job is how I tried to explain it to people. Like that's my two days a week of being a more full time mother ...so that's not your time [work time] but I think that a lot of people, a lot of people seem to think that it is just because you're off then so you can come in. Actually no, I found that quite difficult" (ID18 TrEE; female, Medicine)

Trainers also highlighted difficulties for trainees working less than full time but from a different perspective. Trainers commented that less than full time trainees missed training opportunities. It was not clear from the data whether trainers saw working less than full time as detrimental. This contrasted with what trainees reported the issues to be i.e. not having enough time to complete assessments and too many work commitments for their working time.

“I’m sometimes a little bit more anxious for those trainees who are less than full time because obviously their experience of being trained and looking after patients is a lot more interrupted. Somebody who spends time with the doctor on a daily basis being trained, and I do wonder whether those trainees miss out to a certain extent on the kind of training that’s delivered to somebody who’s a full time trainee”
(ID16 TrER; female, Medicine)

6.2.4.2 Shifting priorities and values

Several female trainees commented on their priorities having changed following having children. This was often related to working part time or being able to spend time with their children. Trainees talked about having to make sacrifices and having to make a choice between spending time with their family or working. They put value on spending time with their children.

“I have a commitment to work but it’s not my whole life...” (ID18 TrEE; female, Medicine)

“I wanted to spend more time with the kids... they were slightly younger at that time and I wasn’t too sure that I wanted to come back to clinical, and I just wanted some more time for myself and although it was 60% I was still struggling because my husband’s a very busy [specialty] trainee and he doesn’t get much time to help with the family” (ID25 TrEE; female, Medicine)

There was a feeling that trainees had to make a choice and make sacrifices between their career and their family. Trainees also commented that whilst they were committed to their work they were also committed to their family as well:

“You have to make sacrifices really, and the last eighteen months my family have been quite supportive, I mean I’m fortunate... So she [my wife] does all the childcare ... she does the pickups and the drop offs... So it’s had to be a bit of mutual understanding ...” (ID24 TrEE; male, Medicine)

6.2.4.3 Returning to work after a period of absence

Returning to work following a period of absence was felt by trainees to be not always managed appropriately. Trainees felt that there needed to be more training for trainers and recognition of issues experienced by trainees coming back from leave, such as maternity or health related leave.

“I came back [following maternity leave] and was supposed to have an induction for two days and the consultant said you’ve worked here before, you remember where the toilets are and this is this, I don’t think anything’s really changed since you were here so would you like to do a post-natal shift, and that was literally it...” (ID29 TrEE; female, Medicine)

“And coming back off maternity leave. When you come back in absolutely cold after doing no surgery at all for 9 months everything suffers, your confidence suffers, the way you approach the patients

suffers because you've forgotten a bit and it takes a long, long time to get back to that...obviously not having anyone who understands that ...they have no recollection what 9 months off means for a female trainee...I was thoroughly naïve, I thought they might understand but no there is no understanding there whatsoever” (ID18 TrEE; female, Medicine)

“From the beginning they had decided I'm slow because I've come back from maternity leave...” (ID25 TrEE; female, Medicine)

However, some trainers showed understanding of issues related to trainees returning to work following a period of absence and commented on the lack of confidence that some women experience working part time or following maternity. Understanding and support following a period of absence may depend upon the specialty the trainee works in and how supportive the trainees' superiors are.

“Well if we think about women specifically I think confidence is a massive issue because they really do struggle with confidence in a way that you don't quite see as much in men and I think that happens particularly after maternity leave and for people working part time” (ID45 TrER; female, Medicine)

6.2.5 Summary of Individual factors

Understanding issues that are being experienced by trainees is important when being able to provide support for those issues. There were four sub categories within the overarching individual factors. These were: personality,

lack of engagement with support offered, doctors who had graduated overseas, and working patterns of trainees, for example trainees who work less than full time. These barriers were found to be inhibiting factors to trainees progressing in their specialty training.

Trainers commented that the personality of some trainees sometimes made it difficult for them to provide feedback, especially to those who did not engage with their training or who lacked insight. Personality also affected trainees' ability to communicate effectively with members of their team or their patients in a professional manner. There were several issues related to principles and values, such as trainees' lack of conscientiousness and team working. Trainers reported issues around time management, communication skills and other non-clinical skills. Presenteeism was an area that both trainers and trainees discussed in relation to trainees feeling that they were unable to take time out and be absent from work if they were unwell or following a bereavement. Trainers reported that this was very much a perception amongst trainees. However, trainees commented that due to staff shortages and the busy environment they felt they were unable to take off the time needed.

Trainers reported that it was often difficult to support trainees who were underperforming but were unaware and lacked insight into their difficulties.

There was a difference in perspective between trainees and trainers in relation to confidence. Trainers reported that with regard to trainees' confidence, being either over or under confident could have an impact on their training and patient safety. However, trainees only commented on their

under confidence which they often linked to something external to their work/training life. They perceived the issue of under confidence to be related to a lack of support and understanding of issues in the work place, rather than their personality as was thought to be the case by trainers. This conflict of understanding could impact on the uptake of feedback and remediation.

Both trainers and trainees commented on doctors who had graduated from a country other than the UK (both EU and non-EU). Trainers reported that, often, overseas qualified doctors had additional issues to overcome when undertaking specialty training in the UK, for example communication, acculturation, professionalism, engagement with training, receiving feedback and the transition to UK life. From trainees' perspective they mostly reported the difficulty of making the transition not just into training but also into the UK lifestyle. However, there was consensus between trainees and trainers that there was support available.

However, trainers commented that there was a fine balance between offering support and being overly supportive and undermining the trainee, especially in the rest of the team's eyes.

Trainers and trainees reported issues related to less than full time working and wanting to achieve a good work life balance. Trainees commented that it was difficult to fit their workload in and still complete assessments. There were changing priorities when coming back to work following maternity leave. Trainees commented that returning to work following a period of absence was not always managed appropriately. Trainees were going back into a clinical setting needing more support.

Both trainers and trainees commented that trainees are often high achievers who are not used to failing, which can have an impact on their resilience if, for example, they experience failing for the first time. They may fail their membership exams or ARCP for a variety of reasons. Some trainers commented on the selection of trainees i.e. they may be intelligent academically but may be lacking in emotional intelligence. However, it is also important to take into account the training environment and the factors that could impact on a trainee's resilience. Internal and external expectations of one's self were mentioned by both trainers and trainees as impacting on a trainee's progression, both personally and within the training environment. A trainee's family's expectations can also have an impact on progression.

There were several differences of perception regarding, for example, being under confident, presenteeism and taking time off, and not asking for help or support for fear of being seen as weak in a culture where failure is seen as a weakness and therefore a stigma. These perceptions, whether real or not, need to be broken down and changed. Many of these contributing factors are related to the values, or perceived values, of the medical culture.

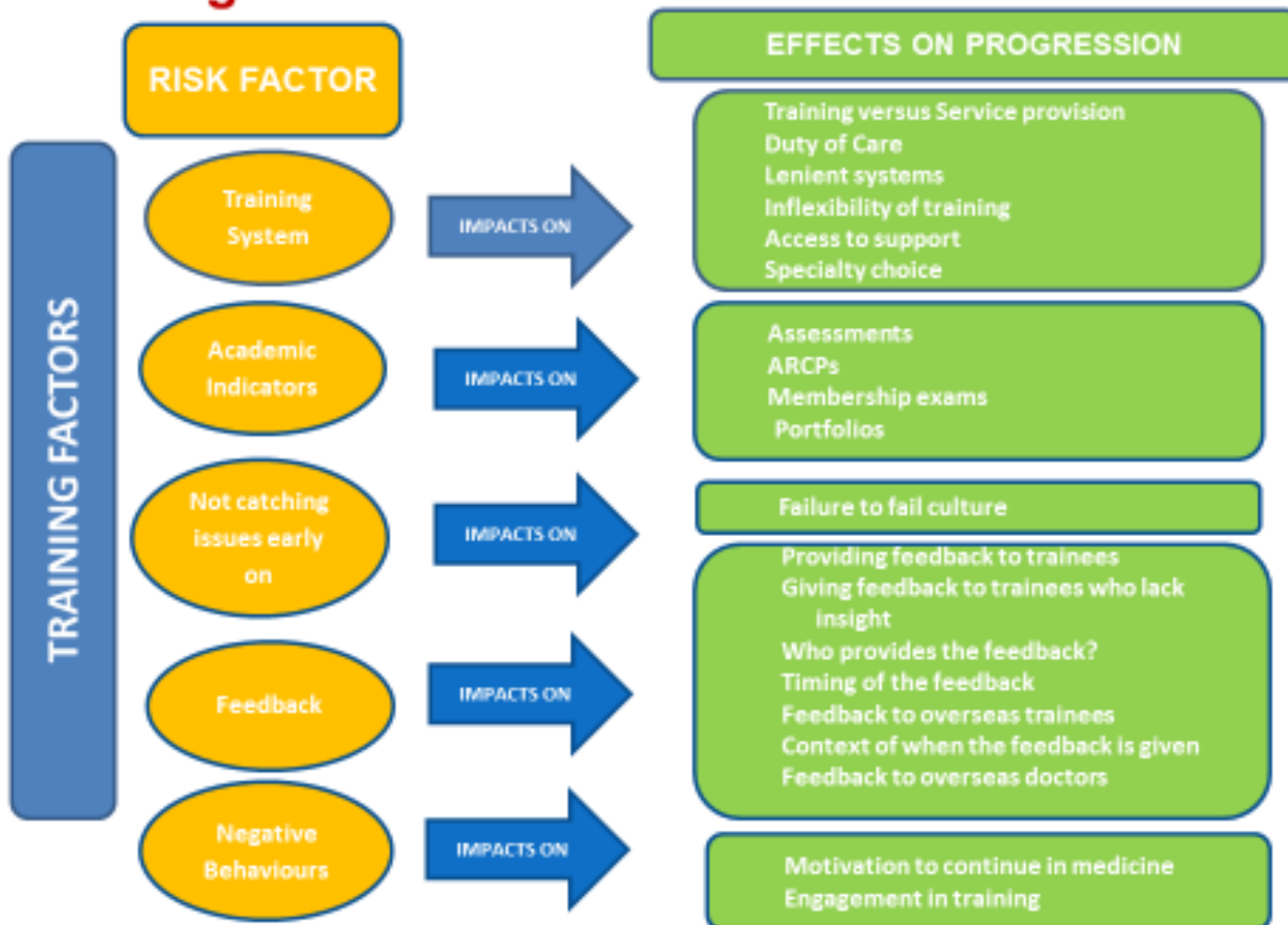
6.3 Contributing factors related to the training environment

External pressures such as a busy, changing, highly pressurised training environment can be a contributing factor to trainees having difficulty and progressing through their training. The training culture, for example those professional shared norms, values, assumptions and perceived expectations within the medical culture can also have an impact on a trainee's progression.

Diagram 5 (on the following page) shows the Grounded Theory coding framework for the core category – Training Environment.

Diagram 5: shows the Grounded Theory coding framework for the core category – training environment.

Training factors



6.3.1 Training System

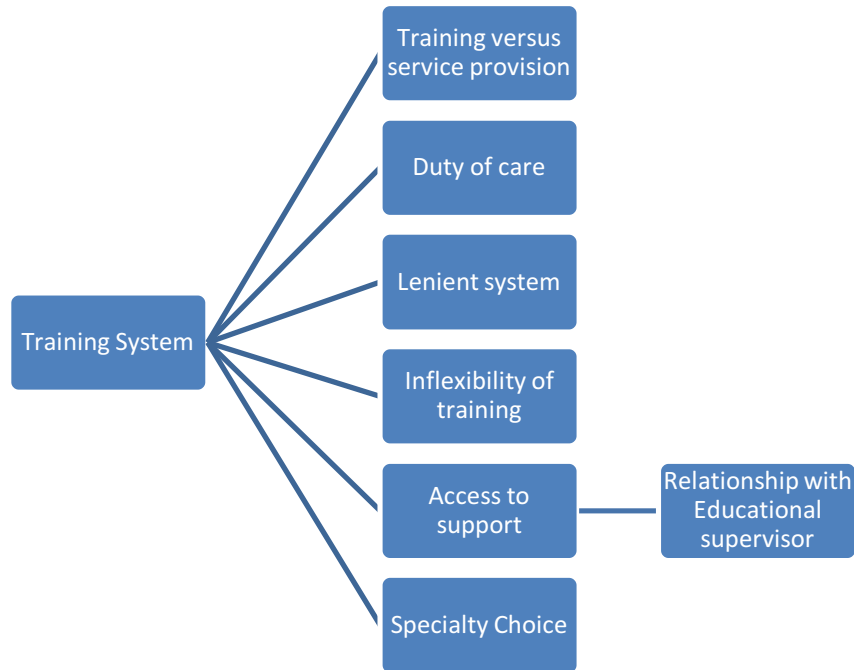


Figure 11 shows the category 'Training Environment and the sub categories

The following section reports on data related to ways in which the training environment can influence a trainee's progression through their training.

The following sub themes emerged from the data, which affected doctors having difficulties progressing through their training.

- Training versus service provision
- Duty of care
- Lenient systems
- Inflexibility of training
- Access to support
 - Relationship with Educational supervisor

6.3.1.1 Training versus service provision

There is a conflict between trainees being trained and providing a service.

There seemed to be different perceptions of what a trainee's role is within the workplace. Historically, trainees were part of service provision and expected to learn on the job, which was much more of an apprenticeship model.

However, that apprenticeship model has changed with the introduction of Modernising Medical Careers. There has been a move to a more competency based training system and trainees have additional assessments and hoops to progress through to achieve consultancy level within a shorter training time.

A small number of trainers felt that it was the responsibility of the trainees to make the training environment work for them. This was a view from the more experienced trainers who had been a trainer for a number of years. It was felt that trainees needed to take more responsibility for their own training needs and be more proactive in the clinical environment.

“The trainee may blame people for not completing [assessment sign offs], clinicians are slow at completing but there's often a consistent pattern that a person who fails to get their e-portfolio and then rushing at the end can't complete. That may be part of a bigger pattern, disorganisation and so on...they've got to take responsibility for the completion so I do think that it's not just the individual elements, that of knowledge base or experience base...there's obviously more to it than not being exposed to a particular area” (ID40 TrER; female, Medicine)

“If you look at the curricula and you look at all the you know the trainee bump the GMC produces there is an onus on the trainee to take responsibility for their learning and that’s what the really good ones do and the ones you know some of these people on 2’s and 3’s they think the world owes them a living do you know what I mean. It’s quite tricky getting them to work out that they’ve got to take responsibility for their life and their work because they’re professionals...that’s what good supervisors, programme directors and deaneries should be doing” (ID30 TrER; male, Surgery)

“Training time is protected and they are not allowed to be part of a team and we often have to take opportunistic training rather than a structured training programme and I know other consultants feel that a trainee’s role is there to make their lives easier and any training needs after that are, how shall I put it? Are just fortuitous, you know but it’s very difficult to get them to admit that” (ID13 TrER; male, Medicine)

Some trainers reported that difficulties sometimes occurred when there were differences in perceptions about what is expected from a trainee, for example, if the trainee is expecting to have some training and have assessments signed off and a consultant is expecting an additional pair of hands on the ward. This could be a barrier if trainees’ expectations of training and their role are different to those of their seniors.

“Even when trainees get the rota, they get pressure from consultants for their slots to be filled rather than training slots being addressed. Also people have different perceptions of what is important and not important and it may be different from a trainee” (ID13 TrER; male, Medicine)

“I guess you would say sort of non-clinical based activity that they then have to do and this will be something that you will hear from lots of old consultants so to speak is that they don’t do enough on the job clinical stuff now... so the trainee of mine spends two hours typing a specimen form as opposed to previously they would have dictated a letter in ten minutes. So instead of seeing three patients, new patients a day, they might just see one” (ID15 TrER; male, Medicine)

However, from a trainee’s perspective they felt that service provision often took priority over the completion of their assessments and portfolios.

“Full timetables squeeze out the less urgent things, so ward referrals and diabetes, nurse bleeps for help take priority over sitting down and doing your e-portfolio...which is why my e-portfolio is empty” (ID10 TrEE; male, Surgery)

There appeared to be an underlying question of whether it is fair on the ‘good’ trainees that those trainees who are having difficulty are sent into the good, supportive training schemes to ensure they receive the best support and supervision. This perception that there are ‘good’ trainees (and by proxy, one could assume there are ‘bad’ trainees) highlights an underlying difference in how trainees are viewed.

“There’s two schools of thought, you should focus on the trainees with differing needs and send them to units where there are more training supervisors or you should just send them to anywhere because they should be able to support themselves. A couple of my colleagues feel strongly why should the good trainees be potentially disadvantaged in a unit where you know they won’t get as much robust supervision and input from consultants as other units...I think we tend to look at the individual trainee requirements...” (ID17 TrER; female, Medicine)

6.3.1.2 Duty of care

Trainers highlighted that their number one duty was to the patients and that training was second to that. Training doctors is a unique situation because trainers are educators but in a dynamic clinical setting where they are doctors first with patient safety being their first priority and then educators second.

“Then there’s the real world of actually trying to provide care to patients and medical education and most of the consultants who are involved in medical education or at least clinical education are full time clinicians and so they don’t have the luxury of being purely teachers and so we can’t always turn up on time for all the events...and if trainees don’t chase us to come to clinics or to attend in the operating theatres from a surgical perspective or to go searching for elements of patient education that they want. It can be very difficult for us to always pick it up and chase them in order to fulfil their requirements” (ID44 TrER; male, Medicine)

“I think our responsibility to keep a patient safe should be held over the training needs of a trainee” (ID38 TrER; male, Medicine)

6.3.1.3 Lenient system

Some trainers commented that they felt the system was often too lenient on trainees who were having difficulties and that they were given too much support. Several trainers implied that some trainees were allowed to continue in training when maybe they should not have been and that this should be tightened up. This could potentially have patient safety implications. Trainees did not discuss ‘lenient systems of training’ in interviews.

“My department was not doing too well a couple of years ago with the trainees. Probably they were too harsh on them and then they threatened to take over our trainees...they became too lenient with the trainees...In our hospital they are wrapped in cotton wool” (ID18 TrER; female, Medicine)

“When I was training, I hate to say it, but in my day if you were no good, if you just couldn’t do the job you didn’t get a job...there’s a lot of energy put into helping failing trainees for good reason and with some help they could be put back on track, but some of them just can’t do it, and I think they shouldn’t have got to the point where they’ve got so far down their training that they haven’t been told before...at the point of entry into training perhaps the assessment isn’t as good as it could be” (ID19 TrER; male, Medicine)

Trainers also commented that it was important to recognise that some trainees may never make it as a doctor.

“I think that when doctors get on to a training scale they think they are going to make it and they don’t have it in their psyche that they can do anything else and that something else might be better than trying to do what they’re doing very unhappily and not very well” (ID45 TrER; female, Medicine)

“There are people who it doesn’t matter how much extra training you give them they’re not going to make the grade” (ID20 TrER; female, Medicine)

Some trainers commented that trainees knew how to ‘play’ the system to their own gain, knowing that they would get special compensation. This would be difficult to evidence and do something about. It would also highlight professionalism issues, for example related to probity and honesty if they were not being wholly truthful about any issues they may have.

“Trainees will jump on the bandwagon, they know they’re poorly performing and it may be through sheer laziness and I’ve had this happen in my experience...was pulling the strings and playing a game” (ID42 TrER; female, Medicine)

“I signed him off because he seemed to change whilst he was with me, so he was able to do what you told him to do and then would ignore it subsequently once you thought he was all right...he had problems subsequently as well. He was one of those people that you

kind of wonder how on earth he managed to get to the end of his training in many ways. I don't think anyone really rated him but he just managed to get there..." (ID50 TrER; male, Surgery)

6.3.1.4 Inflexibility of training

Trainees commented that they thought that specialty training was very inflexible and commented that it was often difficult once they were on a specialty training scheme to then do something else, for example get some experience working abroad and then re-enter the training system. Some trainees likened their training to being on a conveyor belt or a treadmill, which has negative connotations. Trainers did not discuss the inflexibility of training in interviews.

This inflexibility could have implications for burnout in the future for trainees and may have an effect on recruitment to some specialties. Trainees might choose to avoid a specialty which is perceived to be less flexible, or delay starting specialty training to go abroad or do something different before entering their training.

"You are made to feel like as a trainee you are on this treadmill and you've got these goals, you've got to get your exams, you've got to pass your ARCP. You feel like if you come off the treadmill then you are going to come off the treadmill..." (ID11 TrEE; female, Medicine)

"It's not as flexible as it could be, I think there's not much scope for out of programme training, or sabbaticals or working abroad, you know broaden your horizons a bit more, they don't allow that kind of, once

you're on the conveyer belt you can't get off...I do love it [my training] but it would be nice to have a bit more flexibility" (ID17 TrEE; female, Surgery)

"We all came into FT [Foundation Training] expecting that we might have the possibility of taking time out of training, so going to work for Mediciens Sans Frontieres or NGO work because that's really helpful...they just can't release you from the programme and then you feel like you are on this conveyer belt...they've been really clear with us because we are not going to get any time out of training, which is really sad because that's what a lot of us wanted...the only escape from the training programme at the moment is either to have children or go part time..." (ID21 TrEE; female, Medicine)

Some trainees felt undervalued and linked negative training experiences with recruitment and retention of doctors. For example, if a trainee has a bad ARCP then it gets around by word of mouth and it could put foundation doctors off applying for that specialty. Again, this could have implications for recruitment of trainees into specialty training.

"They hear of us having a nightmare at ARCP it's just off putting and demoralising for more junior members...after mine [ARCP] an awful lot of wider members of the team were aware to a degree of what was going on including more junior members and they just basically had the opinion that they were not interested in staying in hospital medicine if this is what happened at your ARCP" (ID19 TrEE; male, Medicine)

“We are used so much for service provision and that means that the training opportunities that we’re meant to get don’t happen at all or less than they should...they can’t release you from the programme...we’ve had a really big drop-out rate, especially among more senior trainees like ST5, ST6s there’s got to be a reason why...”
(ID21 TrEE; male, Surgery)

6.3.1.5 Access to Support

Everyone learns at different paces and some trainees may take longer to learn new skills or to settle into a specialty. This can affect a trainee’s ability to train to the best of their ability. From a trainer’s perspective it is being able to recognise that some trainees may need additional support and being able to put this in place in a timely way.

“Some of them [trainees] take a slightly scenic route, they struggle a bit, yeah we have their needs, we have patient safety, if they are not ready they are not ready that’s as it is really” (ID24 TrER; female, Medicine)

There were mixed feelings from trainees about having access to support, although the majority commented that once they had been found to have an issue then they received good support. However, some trainees commented that they had not felt that they had been supported or had not known where to access support.

“I think sometimes trainees aren’t aware of the support they can access” (ID17 TrEE; female, Surgery)

“I asked for that sort of support and they were fantastic to be honest its part of the support they give to me some sort of lectures and training stuff” (ID27 TrEE; female, Medicine)

“One [consultant] said I lacked confidence and all this other stuff I was like no shit Sherlock of course I lack confidence I’ve been battered, I’ve had no support, of course I lack confidence” (ID26 TrEE; female, Medicine)

“If [specialty choice] training had gone well and I had felt supported you know; I might have stayed in it that might have been another reason to stay in it but I guess the fact that I wasn’t was just another thing adding to the list this is not what I want to do” (ID12 TrEE; female, Medicine)

Some trainees also discussed the importance of social support.

“I think it makes a difference in that way professionally but personally I think, personally I think not having family support might add to the problem, especially when you have kids” (ID25 TrEE; female, Medicine)

6.3.1.6 Relationship with a supervisor

Many of the trainees commented that it was important to talk to someone about any difficulties they experienced, so that supervisors were aware of these. However, they recognised that this was easier if the trainee had a good relationship with their supervisor, which was not always the case.

“You’ve got to talk to them and let them know exactly what is happening. I think that can be difficult if you feel they are not that approachable or...my first thing would be to say you’ve got to trust them and talk to them and explain exactly what’s going on” (ID11 TrEE; female, Medicine)

There were mixed experiences of educational supervisors and how supportive they had been. Overall trainees reported having very good supportive supervisors who had made a big difference in supporting them through a difficult time.

“My supervisor he was really nice and approachable, I mean that was one good thing that I could easily contact him and tell him what my issues were...” (ID25 TrEE; female, Medicine)

“I think most of the hospitals put thought into who they allocate you...” (ID23 TrEE; female, Medicine)

“Yeah, I never felt rushed, my supervisors were always there to talk to if I needed...” (ID22 TrEE; male, Medicine)

“it was really having a really good supportive supervisor that you trust” (ID19 TrEE; female, Medicine)

However, there were a couple of trainees who reported that they felt that there had been a lack of support and understanding from their supervisor which they felt had contributed to them getting into difficulty.

“Your educational supervisor doesn’t really know you, they’re there as a sort of point of contact but in terms of knowing what you get up to or being interested in what you get up to on a day to day basis sometimes they’re not the best placed people for that” (ID11 TrEE; female, Medicine)

“I was just a bit unfortunate with my first two supervisors that it was pretty much their first year as being a consultant and definitely first few of being an educational supervisor so they had lots of things going on in their lives which meant as a trainee I wasn’t really top of the list...I also think they find it difficult to know what’s expected of them as an educational supervisor” (ID21 TrEE; female, Medicine)

Some trainees linked a good educational supervisor to understanding and knowing the e-portfolio system, which they found helpful.

“The supervisor who took me when I had my outcome 2, he really knew the portfolio very well and was very supportive and very good and knew what I needed to do” (ID15 TrEE; male, Medicine)

“Some of the young ones are really up to date with the e-portfolio. The older ones just don’t know how to navigate it” (ID16 TrEE; female, Medicine)

Trainers also highlighted that accessing support and letting someone know that there is an issue is important. They also recognised the importance of the educational supervisor relationship and the impact, both positive and

negative, it could have on a trainee. For example, it could have implications for trainees taking feedback on board.

“Basically I knew that he was struggling because he’d struggled with the exams, he got close but never quite got over the line; because of that his performance was suffering and he was worried about his financial future...I knew all of that and I think the consultant was a bit blinkered to that so probably because they were less sensitive to it, he was less receptive to what she’d tried to point out, so sometimes how the message comes over makes a difference” (ID15 TrER; male, Medicine)

Relationship building and having the right open culture were seen as very important to enable trainees to feel that they could open up to their supervisor and ask for help. Trainees may not want to discuss or share if they have an issue and this can make it difficult for the trainer to help and support trainees.

“It’s about the culture allowing them to express their difficulties without prejudice really. It is a way we can support them with that...” (ID43 TrER; male, Medicine)

“To have the confidence to share what really is very personal information to people they don’t know and that’s not an uncommon situation to be honest with you...” (ID46 TrER; male, Medicine)

“I think part of the problem is that they may not want to talk about that or, you know, let you through to actually talk about them or anything

and that's, you know, that can be a problem" (ID3 TrER; male, Medicine)

It may be that some trainees' lack of engagement and not asking for help is because of a fear of being stigmatised and how they will be perceived. It may be due to not having a good relationship with their educational supervisor and not knowing them well enough to speak with them about any issues they may have.

6.3.1.7 Specialty choice

Trainers commented that one of the factors that can affect a trainee progressing through their training is their choice of specialty. Trainers reported that if a trainee was either not suited to or motivated by the specialty they had chosen as a career then this could impact on their progression through failing to engage with the learning and training. Some trainers commented that trainees are required to make a choice very early on in their training and do not necessarily have the experience in that specialty to make an informed choice.

"Some trainees we get it's very clear they can do it and they have those intrinsic capabilities and can go out there and do it. Others have if you like the raw material we can build on and develop and train to do that, but there are some that we meet that are very unsuited to it and you start to question why they chose it in the first place" (ID34 TrER; male, Medicine)

“I think specialties general practice and psychiatry attract people who are not always suitable by default because maybe they didn’t get into the specialty of their choice...there are definitely people who are not suitable, or clearly are doing it for the wrong reasons shall we say and how you deal with that is very difficult...it may come out in clinical performance if their hearts are not in it they aren’t going to be the best clinician, ... the thing is if someone is not suited to psychiatry but has spent a lot of time in it and are senior registrar level how do you say you’ve wasted the last four or five years of your life...so these are the people we come across that can be quite difficult to deal with I guess”
(ID49 TrER; male, Medicine)

“There are two groups, those who aren’t suited to the specialty that they’ve ended up in it for whatever reason they’ve chosen to go down a career route which actually finds out that their skills and attributes aren’t particularly well matched to the career path they have chosen...they can be fairly advanced in their careers sometimes before the realisation hits home that they are not actually going to succeed” (ID34 TrER; male, Medicine)

“...his attitude was a little less amenable but I think... the fact that he’d been put in a psychiatry rotation thinking I don’t want to do this...”
(ID26 TER; female, Medicine)

A small number of trainees commented that they had changed specialty during their training because they felt that they had been in the wrong specialty. They commented that they had not engaged fully with their training

and completed their portfolio because they knew or were thinking about changing their specialty.

“haven’t particularly decided that I’m going to stay in [specialty choice] or go off into a different branch of medicine or completely leave medicine all together. I don’t think I could leave medicine all together I feel like I’d be leaving part of my soul behind but then again I think that perhaps in medicine we just get a bit too wound up in our jobs and actually I’m not my job” (ID29 TrEE; female, Medicine)

6.3.2 Academic performance Indicators

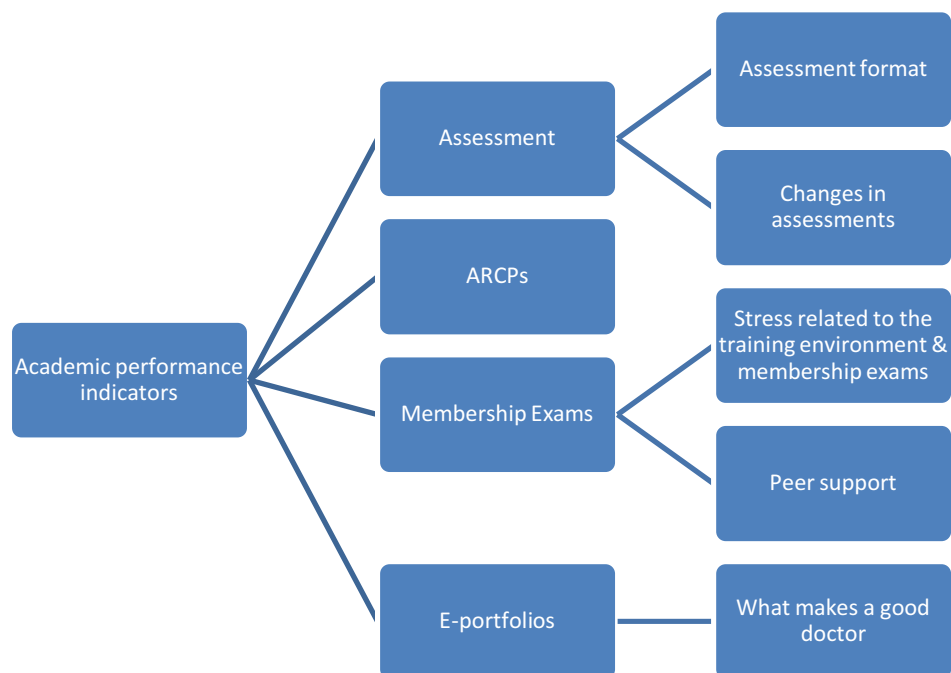


Figure 12 shows the category ‘Training Environment and the sub- categories

The following section reports on data related to how the training environment can influence a trainee’s progression through their training. There are several

ways that trainees can show their progression, such as being observed doing assessments related to their curriculum, completing their portfolio, passing their membership exams and ultimately passing their ARCP to progress to their next level of training. Both trainers and trainees discussed academic indicators such as assessment and, exams and e-portfolios as being a barrier to their progression and again this was followed up in all interviews.

The following sub-categories emerged from the data, which affected doctors having difficulties progressing through their training.

- Assessment
 - Assessment format
 - Changes in what is being assessed
- Annual Review of Competence Progression (ARCP)
- Membership Exams
 - Stress within the training environment and membership exams
 - Peer support
- E-portfolios
 - What makes a good doctor?

6.3.2.1 Assessment

Assessment format

Both trainers and trainees reported that there was an issue around the standardisation of the forms used in assessments and in the end of placement feedback forms. They were felt to be too rigid with not enough room for qualitative feedback.

“I think the way that the forms are set out it’s like a four or a five and what does that mean? That means something else completely different to some people ...have free text to give proper feedback ...I think sometimes the problem is the way that the feedback is given...there’s a vagueness about the tool as well and it allows people to skirt around the questions, sometimes ...these people good enough at the minute” (ID38 TrER; male, Medicine)

“The trainer felt he couldn’t provide all the information he wanted to provide on the form, on the end of the post placement ...he said would you mind if I gave you a bit more information which was really, really helpful the structure of the form was felt you know felt that there was no scope to do that officially” (ID31 TrEE; male, Medicine)

“I do have an issue with the utility or lack of utility of work based assessments...our experience is that people consistently get satisfactory work based assessments by their trainers and then fail their practical part, or clinical part of their membership exams as core trainees, and it’s about failure to fail, the discomfort of giving a poor

mark...there's also an issues about validity and reliability" (ID49 TrER; male, Medicine)

Some trainees commented that they thought the assessments were often not sensitive enough to demonstrate progression, in particular, the scales used on the assessment forms.

"Four grades you can get for each of the assessments. I'm not entirely sure that that is enough...there is a, I think, a big gulf between can't do it on your own and can do it on your own between 2 and 3. That's been used as a stick to beat me with if you like. They're actually subjective, so if you get a boss who thinks quite thoroughly about it and is like 'well she does need my help quite a bit of the time' and it's certainly not minimal supervision so you get a 2 even though I've done three quarters of the operation it could be a 3 in somebody else's eyes...maybe 1-10 might be better..." (ID18 TrEE; female, Medicine)

"It's [multisource feedback] a competency rather than a constructive feedback thing and I question whether that is quite appropriate" (ID15 TrEE; male, Medicine)

From a trainee's perspective several commented that it was difficult to complete all of the assessments or to get them signed off due to them working in a busy environment, which is often short-staffed due to sickness or recruitment issues.

"In a busy clinical environment it's quite hard sometimes to get somebody to commit to doing a proper case based discussion which

really means sitting down for a good twenty minutes...it's quite hard to carry out in the workplace...when we have assessments done they feel meaningless cause they're done in two or three minutes" (ID21 TrEE; female, Medicine)

"I've not been massively assertive in the past and still now find it difficult to ask for assessments because I feel like it's, pressure on both, not just me but also on the supervisor whoever I'm asking for the assessment..." (ID20 TrEE; male, Medicine)

A small number of trainers reported that they were often asked to comment on, or complete, assessments for trainees whom they did not know well enough, or that they did not have enough evidence to feel like they could fully complete the assessment.

"If you are just asked in passing to do it for a trainee you know it's well it's sometimes based on very little evidence if you know what I mean" (ID15 TrER; male, Medicine)

Some trainees reported that they felt the size of the hospital made a difference. It was easier to get assessments signed off in smaller hospitals. However, it was also what the trainee was being exposed to and what patients were presenting with, which made a difference in terms of trainees being able to get all of their assessments signed off.

“Obviously the size of hospital as well makes a difference. So it’s what is presented what patients are presenting. This year we’ve got major trauma as some of our key objectives but I’m in [name of hospital] so they don’t have trauma...” (ID23 TrEE; female, Medicine)

“Smaller hospitals are much easier...I think it’s doing the on calls more frequently but also I think that it’s just it’s a more manageable size of team where you’re not just one tiny cog in a huge machine. People know who you are; they know you need to get your assessments done...” (ID19 TrEE; female, Medicine)

Nevertheless, trainees did comment that there was another side to working in a busy environment. They felt that even though they were not able to get their assessments signed off they were gaining valuable experience. Some saw this as manageable:

“Essentially senior trainees are doing an awful lot of service provision. But that in itself is educational. So I think the balance is alright currently” (ID14 TrEE; female, Medicine)

“Training it’s on the job learning which is valid. Don’t get me wrong I am learning as I work but I am very definitely working. My job is predominantly service provision” (ID10 TrEE; female, Medicine)

However, other trainees found it to be overwhelming at times and often detrimental to their training.

“The rota has been very, very busy and understaffing and lack of registrars is a huge problem...it can take away from our training because we have to be there in service provision first and foremost and training can come second and when the break is so short unfortunately training does take a bit of a back seat” (ID17 TrEE; female, Surgery)

Changes in assessment

Some trainers commented on the difficulty of balancing the different curricula of the trainees. Trainers may supervise several levels of training and trainers commented that it was often challenging to remember what each trainee's requirements were. Trainees also reported that there had been several assessment and curriculum changes, which had resulted in confusion and stress.

“Supervisors can be having you know, foundation training, CMT training (core medical training), GPVTS (General Practice vocational training) and SPRs, they all have different curriculum requirements and different things to remember so I think it can be very difficult to supervise well” (ID23 TrER; female, Medicine)

“I can honestly say because they've change changed the assessment technique so many times it does make it more stressful than it needs to be. So we kind of understood the process and they changed it and it was all very confusing and stressful. Sometimes we are thinking we're thinking we didn't have enough assessments and then suddenly

we were told off for having too many and then not enough of the right type” (ID15 TrEE; male, Medicine)

6.3.2.2 Annual Review of Competence Progression (ARCP)

ARCPs were generally seen by trainers as a good way of highlighting any issues that trainees may be having. For example, if there was a lack of paperwork or completed assessments then this was thought to be an indication of a doctor having difficulties.

“I’ve been aware of a trainee who was popular and things were going very well and were generally thought of to be you know, good at their job but didn’t do paperwork at all well and struggled with that as a trainee. The lack of paperwork also was a symptom of other issues. So I think the ARCP tool can be very valuable, again it’s I guess these things are still fairly new and we’re still trying to learn how to use them” (ID6 TrER; male, Surgery)

“We do our annual ARCPs or interim reviews and that tends to be when stuff comes to light. It’s a really big training programme so you have about 160 trainees so we don’t have that sort of inside information that some of the smaller specialties do because we have so many trainees, so often problems don’t really come to light until the interim reviews” (ID23 TrER; female, Medicine)

However, both trainers and trainees commented on the ARCP process itself. Some felt it was very stressful and intimidating, which put additional pressure and stress on to trainees.

“The ARCP process is a lot more robust but I know trainees find that considerably stressful...there’s a balance that isn’t there, but certainly puts a lot of pressure on. Even the good trainees that haven’t had any problems that are cruising along find it very stressful” (ID17 TrER; female, Medicine)

“The ARCP is quite intimidating. I think certainly for me there’s just too many people around...10 [people]...they just sit around a table...they make you go out to Waterfront...you’re in for like 30 seconds and then you go home...” (ID16 TrEE; female, Medicine)

“the experience itself was so traumatic that I may have told you I was given a two or whatever...I knew I was going to be told off for not having done my assessments” (ID19 TrEE; female, Medicine)

Both trainers and trainees commented that the ARCP process might not pick up trainees who might be good at completing assessments and paperwork but not necessarily be of an appropriate standard in their day-to-day practice.

“In my experience Registrars, generally speaking the disorganised portfolios actually do reflect what we actually know about them. Not exclusively though because there are people who have fantastic portfolios so they sail through an ARCP and yet when you look at them and think they’re not quite as good as we thought they were” (ID50 TrER; male, Surgery)

“There’d been a lot of concerns flagged up about him...but he actually got an outcome one in his ARCP despite all that because the

adequate documentation was filled in, he had the right number of assessments ...and you'd see other people who were really conscientious doctors who were really, really good at what they do and they maybe go and get an outcome 5 ...because basically for ARCP you're given a list of things that you have to submit, and if you submit them all that's you through. It's easy for people to hide what they are really like" (ID23 TrEE; female, Medicine)

6.3.2.3 Membership Exams

Exam failure was one of the main contributing factors for trainee participants in this study receiving an adverse outcome in their ARCP. Trainees found the timings of the exams and the pressure and stress particularly difficult.

"I know a lot of doctors know they want to start their exams in foundation because there's not enough time and you know I don't know how they know what they want to do in foundation. So I guess the exams is a big thing and there's a lot of pressure about you know passing the exams" (ID12 TrEE; female, Medicine)

Several trainees commented that they felt that they had been under pressure to take their exams, which was not always appropriate. They reported they had often felt pushed into taking them when they had other priorities in their life external to training.

"I've always been pushed to do exams despite the fact that I had significant problems in my personal life...I've had very little support. So instead of people just saying to me just leave the exams you know

you've got too much on your plate they say you must get the exams and so there's just been too much pressure" (ID16 TrEE; female, Medicine)

"Have you started revising for paper 1? You know it focussed on exams all the time, it was quite difficult...it's constant you know think about exams yet when you ask for study leave you can't get any..." (ID12 TrEE; female, Medicine)

"I think if I hadn't been under so much time pressure...then I probably would have said 'well hang on a minute, I might wait and not do this exam' and then I might not have gone 'oh crap, I ran out of time, I've got to pass it" (ID14 TrEE; female, Medicine)

Trainers reflected that membership exams often detracted from a trainee's learning and put additional pressure on the trainee.

"Exams are used to progress your training in ARCP and now they are more strict about not having the correct exam requirement to pass through training...There was less pressure to do the exam [previously] So now people are doing exams earlier when they have had less experience. They are getting their heads round a brand new specialty and doing a lot of on-calls which is stressful, because it's a new specialty again and there is pressure to do the exam...in addition to all the extra assessments and the e-portfolio ...so I think it's more about the timing of the exam...they are all hard exams and the competing pressures as well" (ID17 TrER; female, Surgery)

“I think it’s the fact they’ve got four separate exams to prepare for in rotation...so let’s assume they fail at least one of those exams that means that in the first six months of your rotations you’re not going to sit your exam and virtually all of the placements is reduced, half of your learning is regarding your exam” (ID15 TrER; male, Medicine)

“They concentrate too much on the exams ...I think the exams are a barrier...to gain knowledge and skills and the non-technical skills...if they do not pass their exams they will be thought of as failures. Exams have nothing to do with what you do in your daily [clinical] life. Exams only show you are good with memory...yes exams are important” (ID18 TrER; female, Medicine)

Stress related to the training environment and membership exams

Both trainers and trainees commented that the job and training environment were very stressful. Trainers reported that there were different pressures placed on trainees now compared to in the past and it is important to recognise and support these differences in the training environment.

“Stress and depression is the kind of commonest scenario really unfortunately and it’s a very stressful difficult job” (ID7 TrER; female, Medicine)

“I think there’s a perception amongst older people and I’m not stereotyping I’m saying for some people that there’s this feeling of well, we managed, so should you be able to. But I think the pressures

are different now, information technology is great but I think it can be its own worst enemy in that we are expected to be communicated with all the time” (ID55 TrER; female, Medicine)

From the trainees’ perspective, stress was often linked to the membership exams and the pressure of passing them. However, this stress and pressure often escalated and influenced all aspects of life.

“It [stress] completely, it affected my life absolutely massively, everywhere everything about my life was on a complete downward spiral” (ID14 TrEE; female, Medicine)

Some trainees also commented that it was not just the exams which added to the pressure for trainees, but the constant changing of the goalposts and boundaries within training, which added to the stress.

“I go back to the whole stressful situation of if you keep on changing the system the trainees have to deal with the system to get through to jump the hoops and if you keep on moving the goal posts it makes it very stressful. Particularly with the threat of ‘we might extend your training if you don’t do all of these assessments” (ID15 TrEE; male, Medicine)

Extended training or being able to come out of training temporarily was seen as a positive thing by some trainers for those trainees who found it difficult to pass their membership exams. It offered that extra time and space to pass the exams.

“People who couldn’t pass the postgraduate exams that you have to do and they’ve gone on to the sort of staff grade type levels and extended training just gives them the time to see you know have a really good go as much time as they needed to be able to pass the exam but it also gives them more training...” (ID20 TrER; female, Medicine)

“She struggled trying to pass her exam. Then developed health problems ...we supported her training with extensions of her training. It took a while before she was well enough or ready to attempt her exam again but she did finally do it ...and she was successful” (ID7 TrER; female, Medicine)

Several trainees reflected on their extended training and were, in hindsight, thankful to have had the additional time.

“I’ve come out the other side. I’m happy to talk about it to anyone because I think it [receiving an adverse ARCP outcome] maybe happens a lot more than we think it is. I’m determined to get to the end” (ID14 TrEE; female, Medicine)

“So that was good. And just knowing, having a wakeup call essentially cause as I said the way the portfolio works as an SHO and registrar was different and actually having that ARCP outcome 2 as an SPR was helpful for progressing because I knew that I had to do what I needed to do for each year in a better way. But the training support service is very good” (ID15 TrEE; male, Medicine)

“It is quite common to have your training extended and it’s certainly not a negative at all. I think seven years to train to be a consultant is a really short amount of time and an extension gives you the opportunity to get more experience so it’s a good thing, and you don’t want everyone to finish at the same time because then there really wouldn’t be any jobs so if you stagger the process I think it’s fair. It’s not held me back so...” (ID17 TrEE; female, Surgery)

Peer support

Peer support and having a social network were seen as invaluable to help with passing membership exams. Some trainers reported they had set up their own informal peer support groups to help support and revise for their exams.

“There was no one to supervise that so we did it in small groups; I just linked in with other friends that were revising kind of helping each other. And yet some of the other hospitals have a more formal system of consultants or registrars supervising trainees in their revision” (ID11 TrEE; female, Medicine)

“My main priority was exam passing, but I’m quite lucky because a lot of my friends work in [specialty name] so I didn’t have any trouble revising for it“ (ID23 TrEE; female, Medicine)

“Set up a [specialty name] club which was supposed to have weekly meetings to try and prove our preparation for the final bit, and that did

help for all of us waiting to get the exam last year and by the end of the year we'd all got the exam so, but it was quite registrar led... it has been down to the trainees" (ID24 TrEE; male, Medicine)

6.3.2.4 E-portfolios

There were some mixed feelings about e-portfolios regarding how helpful they are at demonstrating learning. Some trainers reported that they felt that the e-portfolio was a tick box exercise, whilst others acknowledged that the system was better than previous systems. Even the trainers who were not complimentary about the e-portfolio commented that they could not think of a better system for the trainees to provide evidence of their competency.

"I think having a portfolio is better than nothing and better than what we had twenty years ago..." (ID37 TrER; male, Medicine)

"I think it has advantages and disadvantages. Having the portfolio, it can give them [trainees] a structure and the competencies they need to achieve before they go to the next level. But sometimes it can be a snapshot of their skills because they're there for a very short time..." (ID51 TrER; female, Medicine)

"The danger is it can become a tick box exercise..." (ID50 TrER; male, Surgery)

"If used appropriately and not as a tick box method then the portfolio can be very helpful to demonstrate competency in learning" (ID47 TrER; male, Medicine)

Several trainers reported that whilst some trainees may be good clinically they might not be very good at evidencing their competency and progression. There were several reasons given for this. One of the main difficulties cited by several trainers was the difficulty that trainees had in collecting evidence. This may be because of individual factors such as their personality, for example they are a perfectionist and want everything to be perfect, or they are very laid back and leave things until the last minute, or that they are not used to the UK training system and therefore may not realise the importance put on portfolios. Alternatively, it could be due to working patterns such as working less than full time, rota patterns or work intensity.

“In the widest context of sort of communication, e-portfolios and overseas trainees there is a bit of a journey, a bit of a gap I think how they perceive e-portfolios, work based assessments to get to the next stage as a bare minimum...the reflective thing is very, very if I may say a new thing for overseas doctors, they do it all the time but not necessarily on paper” (ID22 TrER; male, Medicine)

“I think there is that slightly funny cohort of people who are really underperforming on e-portfolio but quite high fliers at everything else, and they tend to pull it out of the bag right at the end which obviously causes quite a lot of concern for their supervisors and things as it goes on” (ID23 TrER; female, Medicine)

“I suppose the main difficulties is wanting to do a good job but not necessarily putting the evidence in that they need to put in...gathering the evidence...I’ve seen people, some very laid back about it and

think that they can get away with the bare minimum, others are very perfectionist and that carries over into their daily, you know clinical work, so they want everything to be absolutely right and then that doesn't leave them enough time...there's something about difficulty protecting your time within your working week" (ID33 TrER; female, Medicine)

Several trainers commented that they thought the portfolio provided evidence of those trainees who were having difficulty, which made it easier to identify and have evidence to be able to support those trainees in difficulty.

"I think that is really the way things have changed in the last few years actually it's so much more evidence based now. In the past, generally people would have had an idea if somebody was having problems during their training, it would be fairly obvious but it was quite hard to do anything about it necessarily because it was just people's opinions on things...it is best to have evidence..." (ID25 TrER; female, Medicine)

"With respect to trainees with differing needs, one thing I learnt from my experiences is the importance of keeping educators notes in the portfolio and maintaining those notes and being open about them so it proves that you have met from both sides. You can say to the trainee you have not met this meeting...or what you will be achieving by the next meeting...it's keeping a record it's very important" (ID40 TrER; female, Medicine)

“In my mind it’s always been as a means to provide evidence...makes it a bit more accountable...the trainee can provide evidence that they have been trained in certain areas so it’s a good thing...the downside is it adds lots of paperwork...” (ID44 TrER; male, Medicine)

“My view on the portfolios is to me a mechanism of documenting learning events for the trainees that the good trainees would have done anyway and the poor trainees wouldn’t...it gives the training committees information and evidence so that they can sort them out...present them with data so they can be moved on or be challenged about stuff but is it a good learning tool, no, I don’t think so” (ID4 TrER; male, Surgery)

Equally, if there is little evidence in a trainee’s portfolio this can also highlight that a trainee is having difficulty and help to identify gaps in training.

“A lack of evidence in their portfolio, lack of engagement there’s a pattern you see and I think it does represent a few of them” (ID17 TrER; female, Medicine)

Trainees reported that some supervisors who had not used portfolios in their own training did not fully understand the portfolio and assessment system and often the importance of getting the assessments signed off.

“The problem was at that point the supervisor seemed maybe slightly not really fully grasping how important the e-portfolio and the assessment tools were really for progression...I think that is changing...there’s been a culture change over the last three or four

years, it depends very much where you are as well...” (ID19 TrEE; female, Medicine)

“There are some consultants who are quite new that have been brought up with the e-portfolio system so they’re a lot more au fait with how it works and a lot more willing because they understand how important it is...” (ID21 TrEE; female, Medicine)

What makes a good doctor?

Both trainers and trainees commented on whether completing a portfolio proved that the trainee is a good doctor. Many trainers reported several incidents from their own experience of trainees whom they knew to be very good but who had not completed their portfolio or lacked evidence for their portfolio. Some trainers questioned the reason for portfolios: was it to help the trainee or to reassure the public to prove that doctors have been validated?

“I’ve had some quite weak trainees who’ve produced fantastic portfolios...and I’ve had other trainees who are simply sensational, wonderful, you’d want them to look after your relatives - [but] who produces a very weak portfolio. So I think there’s a real skill in the portfolio bit” (ID5 TrER; female, Medicine)

“[Portfolio system including revalidation] is really gathering evidence that we are good doctors and it is gathering to pacify the public that the doctors have a real validation but you can easily work around that

and always produce evidence that appeared to be proper evidence as long as you have certain skills in organising yourself and similar with trainees as long as they manage their portfolio in shape they're safe in their training even if they are mediocre doctors" (ID27 TrER; male, Surgery)

"Some people write and some don't write so well and also some people are very good at presenting themselves in portfolios and they stand out and that doesn't at all collate with how good doctors they are..." (ID9 TrER; female, Medicine)

Some trainees reported that even though they had developed as a doctor in their training and gained a lot of experience, they had not been able to meet all of their training objectives because they had been working in busy environments and looking after patients rather than gathering evidence for their portfolio. This raises the question: 'Is this a sign of a doctor who is underperforming, or of one who is in the wrong training environment?'

"Well I had been focussing on just doing my best in a very busy job where we had not enough registrar level members of the team, people off, sick leave and gaps unfilled or whatever, ...the shortfall that again prevented me from passing that year was that I didn't have enough forms completed whereas actually I felt like I'd learnt a huge amount and come on clinically...when you consider what my objectives are in terms of progressing and developing as a registrar and you know my training ability..." (ID19 TrEE; female, Medicine)

“Too busy just doing your job...it makes me feel a bit sort of useless really sometimes...why am I not managing this and it does make you feel you know get out, you know where is the value in just being a good doctor... (ID12 TrEE; female, Medicine)

This perspective of what is the portfolio there for, and whether it shows that trainees are good doctors, was reflected in what some trainers had observed. Therefore, it is important to understand the context of the training environment in which the trainee is working. The ARCP process is changing and has been centralised and one could argue that the local context may not be fully understood. This may have negative implications for the trainees.

“The really conscientious doctors spend a lot of time looking after patients and don’t spend a lot of time collecting paperwork necessarily. So I think that’s the danger and I don’t know how you get around that...but if you look at a poorly presented portfolio that might be a reflection of a badly organized doctor, or it might just be a reflection that they’re working so hard that they haven’t had time to do it” (ID50 TrER; male, Surgery)

The portfolios did not always seem to reflect accurately the strengths and weaknesses of the trainee. Findings in this section have highlighted from both trainees’ and trainers’ perspectives that ARCPs and the completion of e-portfolios and associated assessments often took away from learning on the job. Portfolios were often viewed as a tick-box exercise. There was also some concern over whether they would pick up doctors who were good at completing an e-portfolio but may not be very good as a doctor.

6.3.3 Feedback

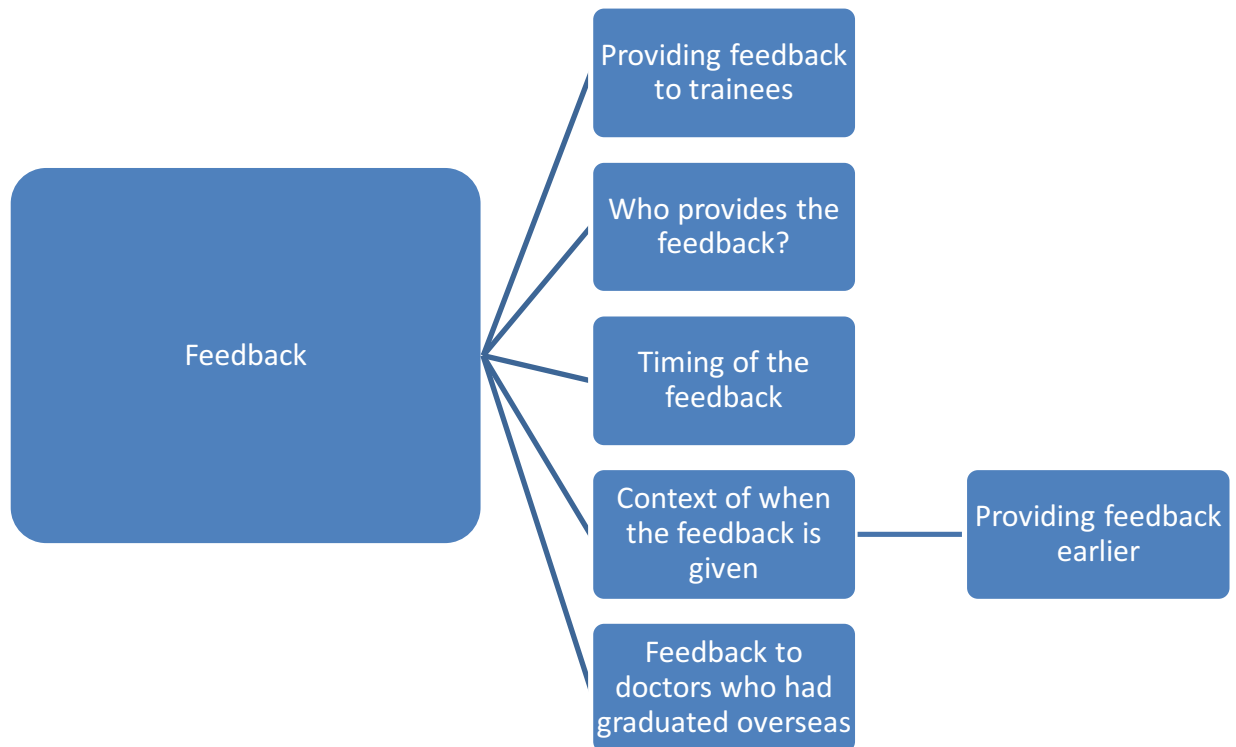


Figure 13 shows the category 'Feedback' and the sub categories

Providing feedback to trainees was seen as an important component of the way a trainee learns what is expected from them within the medical culture. It is an important part of a trainer's job to provide that feedback. However, providing trainees with challenging feedback was reported as one of the most difficult areas for trainers to undertake. Trainers often felt inadequate and that they lacked experience or training in this area. Receiving feedback could act as a barrier or as an enabler to a trainee progressing through their training and was therefore deemed an important area to follow up in all interviews. Questions related to feedback were followed up in all interviews as this was a category that was deemed important to answering the research question 'what factors contribute to doctors receiving adverse outcomes?'

The following sub themes emerged from the data, which affected doctors having difficulties progressing through their training.

- Providing feedback to trainees
- Who provides the feedback?
- Timing of the feedback
- Providing feedback earlier
- Context of when the feedback is given
- Feedback to doctors who had graduated overseas

6.3.3.1 Providing feedback to trainees

Providing feedback to trainees with difficulty was seen as an important part of a trainer's role, but also as a big responsibility due to the time and commitment involved. It was also an area in which trainers reported they required more training.

"I think it's really hard, and I think it is something we really struggle with as supervisors to give feedback. I think supervisors need training on how to give that sort of feedback. It's our responsibility as supervisors to bring out the best ...I hate giving feedback that challenges really" (ID23 TrER; female, Medicine)

"Certainly in my experience it's been quite difficult suggesting to people that they might want to do things differently if they don't understand what it is they are doing wrong...I've never had an issue where I could directly deal with somebody who's no insight and I

would, I think find that very difficult as a supervisor, it's, it's something that I would probably need help with" (ID32 TrER; female, Medicine)

One trainer saw it as an 'act of bravery' to give challenging feedback to trainees.

"People are beginning to get the message about giving feedback, giving it constructively but having the bravery to give feedback that somebody isn't good enough" (ID27 TrER; male, Surgery)

Interestingly, a trainee also used the word brave when talking about trainers giving feedback.

"You have to be quite brave as a consultant to do it [give feedback] there were definitely one or two consultants at the [hospital] that would sit you down and say 'right this is going well, this isn't going very well, this is what you need to change' but considering there's a consultant body of sixteen people it would be good to maybe get a little bit more of that..." (ID21 TrEE; female, Medicine)

A small number of trainees reported that whilst trainers may give negative feedback, trainees very rarely receive positive feedback on something they may have done well, which is also important to them.

"I think I find this just in medicine, in med school, people aren't very good at perhaps telling you what you're doing particularly well, people tell you when you do things badly but when you do things particularly well it's just like, oh, moving on..." (ID29 TrEE; female, Medicine)

6.3.3.2 Who provides the feedback?

How feedback is provided and who provides it can make a difference. If the trainer knows the trainee and works with them then trainers reported that they thought this would have an impact on how the feedback was received and also taken on board.

“For my educational supervisor role, they [trainees] sometimes need a bit of targeted feedback but because I know them well, I feel that I am able to give them that and they will respond to it well because we know each other well and we have a good working relationship and I think it makes a massive difference...” (ID25 TrER; female, Medicine)

“I really feel it’s about who is giving the feedback. As I say having good relationship with that person and giving them feedback but that might not be possible in other specialty” (ID27 TrER; male, Surgery)

“It depends upon your relationship with your trainee certainly my kind of work I work quite closely with one trainee, so you get to know each other quite well over that six-month period and my style is relatively straight forward and direct...I think it makes it easier if there’s an issue...the other thing is if you work with a trainee like that you’re bound to pick things up a bit quicker” (ID 11 TrER; male, Medicine)

Feedback may be given from other members of the team, such as nurses, and trainees have to be willing to receive it not just from consultants.

“It’s also an issue with a trainee taking feedback or direction from nursing staff. So you know, nursing staff in ICU, some of them are very experienced, suggesting things that she might want to do or change. They do that with me, they say you’ve forgotten to do this, oh yes of course. It’s a team isn’t it? Everyone contributes” (ID17 TrER; female, Medicine)

An interesting point made by both a trainer and a trainee was about potential conflicts of interest. This could be a challenge for small specialties where trainers work more closely with trainees. This could also be an issue for trainers who are General Practitioners and, by the nature of their work, work closely with their trainee.

“It can be very difficult if you have to be both trainer and educational supervisor to someone that you’re also having to give an outcome three to or maybe refuse an appeal, so there’s a conflict of interest there. It can just get a bit messy” (ID27 TrER; male, Surgery)

“It’s a small world we live in [specialty choice] so everybody knows each other...everyone’s got a kind of different role which sometimes makes it a bit difficult...I’ve had an educational tutor for years and she’s been fantastic but then at the same time I’m not sure she signs me off for everything you know because she knows me quite well and sometimes I wonder whether perhaps she’s not picking up things that you know she might have done if she’s a bit more objective about it...” (ID20 TrEE; male, Medicine)

6.3.3.3 Context of when the feedback is given

On the job, feedback often depended upon the specialty. Some specialties just by their nature offered a greater opportunity for trainees to have one to one feedback 'real-time' because the consultant or senior staff worked more closely with that trainee.

"You are working with someone in theatre, you're monitoring, watching that person very closely. There's an opportunity to give them feedback on how they are managing the list, how they are leading. I think those non-technical skills do massively impact on your clinical performance and delivery of care" (ID17 TrER; female, Medicine)

"For example, in surgery it's very difficult because if someone is doing an operation and they are about to do something seriously wrong or they're about to harm the patient and it's a real here and now thing. You can't sort of say well how do you feel about this and tell me your feelings you have to say 'stop' and of course that might frighten them and you have to take over which again is a negative thing but you've got to try and you know the patient comes first" (ID30 TrER; male, Surgery)

Trainees also commented that receiving timely feedback was dependent upon the type of specialty trainees worked in. Trainees in some specialties worked more closely with their trainers than others.

“We are very closely supervised in [specialty] so we work with the consultants pretty much all day long. So we know, we get, not always the best given feedback in the world, but we do get a lot of feedback”
(ID14 TrEE; female, Medicine)

Some trainers reported that whilst they were educational supervisors for trainees they did not work with them in a day-to-day clinical setting. This was generally perceived as potentially negative because they were reliant upon other trainers telling them if there was an issue. However, one trainer reflected that it may be good as they were able to stay neutral.

“I’m not working with this trainee clinically you know this trainee is not in my hospital therefore I’m very much relying on her to tell me I’m not managing and to try and work out what’s what” (ID28 TrER; female, Medicine)

“I think the issue is lack of connection between working environment of the trainees and their supervisors, clinical and educational supervisors. I’m an educational supervisor ...I have no idea how they do on a day to day basis. The education supervision system although it’s theoretically good, in practice it doesn’t work mainly because I’m actually outside the box of trainees. Maybe it’s a good thing that I’m actually neutral...but in terms of getting timely feedback and nipping things in the bud, observing either the trainee’s behaviour or the other peers behaviour, I am not on the scene actually to make decisions as they go along...by the time things crop up it’s too late for me to

intervene because it's been three months since the problem's been festering..." (ID41 TrER; male, Medicine)

Some trainees also remarked that it was difficult for educational supervisors to comment on what they did because they do not work with them on a day-to-day basis.

"Sometimes educational supervisors don't really know you I guess; you know they're there as a sort of point of contact but in terms of knowing what you get up to or being interested in what you get up to on a day to day basis sometimes they're not the best placed people for that...clinical supervisors get feedback from the rest of the team as well..." (ID12 TrEE; female, Medicine)

6.3.3.4 Providing feedback earlier

Some trainers felt that feedback was often not given early enough in a trainee's career. Trainers reported that concerns are often discussed but may not be formalised and written down. If something is not written down, then it cannot be taken forward and addressed. Trainers expressed their frustration that some trainers would not commit to formalising any concerns they may have about a trainee.

"It's very obvious the trainees that do have difficulties and I think it's just difficult trying to evidence that and how to get them on board...people can express their concerns. Then it's quite difficult evidencing it...I found it very difficult you know when we discussed in meetings they would express all their concerns. But when I looked at

their mini-cex, for example, you know they appeared almost passive – I found it very hard to summarise their concerns they'd expressed in I guess private meetings" (ID29 TrER; female, Medicine).

"You see trainees and think, it's very frustrating when people don't give [feedback] colleagues will come to you as a programme director and say so and so, this and that, why you talking to me about it? You should be feeding it back to the trainee to know if there is a concern they need to know so they can do something about it and put an action plan in place" (ID17 TrER; female, Medicine)

"If a trainee is not doing very well they [consultant] like to tell you in person, this particular person's organisational capacity is not good or time management isn't good. They are more likely to tell you face to face than put it on a form for feedback" (ID41 TrER; male, Medicine)

Trainees also voiced their frustration at not receiving feedback earlier on in their training or immediately so that they are able to act upon their feedback if necessary. They commented they would have liked to receive it immediately so that they could put it in context of the event and not have it given retrospectively.

"When feedback is really good it's immediate, it's evidence based you can understand where it's coming from cause it's immediate feedback and it's not anonymous...whereas multisource feedback you don't know who's giving you the feedback and you don't know why they are giving you the feedback and then you're left thinking" (ID15 TrEE; male, Medicine)

“Decent feedback then you could get an idea about your weak points so you could work on them for when it really matters. Some of the comments are a bit upsetting and you didn’t find out until the end and then how do you address them, and I suppose it’s really important when you’re a trainee to get feedback because procedures and things you get direct feedback for it but on the way of working and the way you work with people that’s really valuable but you tend not to get very much of it and that’s one of the most helpful things...” (ID21 TrEE; female, Medicine)

“I tried to reflect on the stuff that was written but it was all retrospective and I didn’t know in which circumstance did they feel that way...unsatisfactory for things that I would expect a consultant to come and speak to me about well before my forms...” (ID26 TrEE; female, Medicine)

“I got an email saying I didn’t do a repair properly even though I had a consultant there who was teaching me so I thought it was a teaching experience...if you’d have said Oh it looks really bad you’re not very good I would say ok this is something I need to improve on” (ID28 TrEE; female, Medicine)

However, providing feedback was reported by some trainers to have improved. The reason given for this improvement was that trainers had received more training and were more used to giving feedback. In addition, the assessment tools made it easier to provide evidence. Trainers also thought that the trainees were also more used to receiving feedback now.

“I think things have got a bit better than it was before, so I think supervision has improved and we give a bit more feedback and encouragement” (ID38 TrER; male, Medicine)

“Better trained but also the students are better trained on how to receive feedback...I think the reason why it’s taken a long time for this to filter through firstly the supervisors have been trained and the trainees have been trained” (ID36 TrER; male, Medicine)

There were instances where trainees were not given feedback in a timely way and out of context of the event. Trainees found it difficult to match up the feedback with the event and their recall or perception of events at the time. When and how feedback is given, and by whom, seems very important as to whether it is understood and acted upon. It may be that in some cases it is not that trainees lack insight into their difficulties but that the feedback they are given is not timely or is not appropriately communicated. This could impact on a trainee progressing through their training.

6.3.4 Catching issues early on

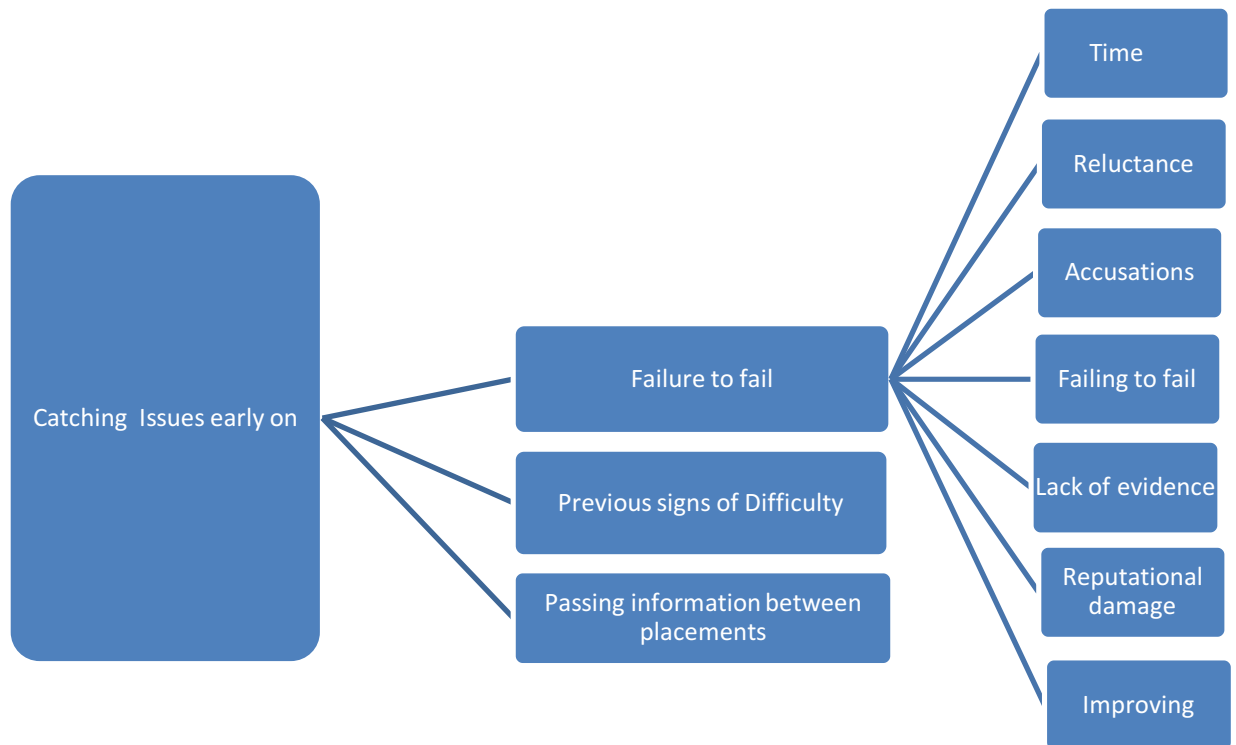


Figure 14 shows the category 'Catching issues early on' and the sub-categories

Catching issues early on in a trainee's training is very important not only for the trainee but also for the teams they work in, their supervisors and patients. If issues are highlighted early enough in a trainee's training programme then the trainee can have a chance to modify the issues and support can be put in place if necessary. However, giving feedback that there are issues and providing support for these is more difficult the further on in training a trainee is, because a trainee could ask why they had not received feedback on problems earlier on in their training. There seemed to be a 'failure to fail' culture within the training environment for several reasons which are outlined below.

The following sub themes emerged from the data, which affected doctors having difficulties progressing through their training.

- Failure to fail culture
 - Time
 - Reluctance
 - Accusations
 - Failing to fail
 - Lack of evidence
 - Reputational damage
 - Improving
- Previous signs of difficulty
- Passing information between placements

6.3.4.1 Failure to fail culture

Many trainers mentioned that they knew of trainees who should not have been able to continue in their training without some sort of intervention.

Trainers reported that the ‘failure to fail’ culture was still a persistent issue within medical education.

“I think failing to fail is a massive thing” (ID17 TrER; female, Medicine)

“See educational supervisors and trainers unwilling to give negative feedback, an unwillingness to say that’s where this person is below the line” (ID27 TrER; male, Surgery)

“There’s a general overall issue of failure to fail” (ID49 TrER; male, Medicine)

“It’s the softer side of technical ability...their complication rates are higher than the rest of us but not high enough that you would say ‘well they can’t be a consultant surgeon’ they say ‘you can as long as they’re not in my hospital’. Clearly, in some respects those will come up to an appropriate standard but what we’re saying behind closed doors is that they’re ok but they’re not ok enough to work where I work. And I don’t think the ARCP process addresses that and because it doesn’t address it directly that’s never said back to the trainees”
(ID35 TrER; male, Surgery)

There were several reasons given as to why this culture of failing to fail occurs. The main reasons given were the time it takes to support the trainee or complete paperwork and follow up, a lack of evidence to prove that the trainee is experiencing difficulties or that the trainers did not want to be accused of bullying, harassment or inequality by the trainee if issues are raised.

Time

Issues around the amount of additional time and paperwork that a trainee in difficulty can take up from a trainer’s duties were thought to be one of the factors for the failure to fail culture. A trainer’s time was limited and a trainee who was experiencing difficulties was seen to take more time and make more work for trainers. This factor seemed to be a very prominent consideration for trainers.

“I think doctors are very pushed for time and any perception of somebody that’s going to not flow through smoothly and is going to cause extra work will not be recognised or flagged up quickly” (ID16 TrER; female, Medicine)

“So a trainee with difficulty creates more work for them and therefore sometimes what happens is there is an urge, inclination to not confront, so you don’t have to do more work and therefore you can just do the bare minimum and if things are kept simple then it is somebody else’s problem.... I think that’s a wasted opportunity ... to signpost someone to say I don’t have the skills but let me talk to someone who can actually take them on. I think a lot of that happens every day for trainees and trainers. I can say with a confidence that this is happening in every unit” (ID22 TrER; male; Medicine)

“I really don’t think there is any quality to the box ticking. And you have to do a lot of it as people do they just tick them as fast as possible and unless the person they are dealing with has major problems nobody wants to tick a box that identifies there is a problem because that only generates more work. So as soon as you say it’s satisfactory then you have to write a line to say why that is and for most people they just won’t do that because it’s a busy day it’ll take five minutes to tick all the boxes if you tick everything satisfactory but it’ll take 25 minutes if you tick not satisfactory...”(ID21 TrER; male, Surgery)

“As soon as you’ve got a trainee in difficulty it takes more time doesn’t it? It takes a lot more input to make sure that trainee is doing ok...it’s because of time... clinical pressures... some people might think this is not going to be their specialty overall but as long as they reach basic competency...some people may think that’s good enough and pass the buck a bit. I would hope I wouldn’t, but maybe I would, I don’t know. Depends on the situation doesn’t it?” (ID26 TrER; female, Medicine)

Reluctance

Several trainers reported that trainers may know or suspect that there is an issue with trainees but are reluctant to report it until either someone else mentions it first or they report it at the end of the trainees’ rotation.

“If I think someone is lacking insight then I’ll talk to the clinical supervisor and almost invariably he’ll say ‘oh that’s exactly what I thought’ and so people think these things but don’t know what to do” (ID21 TrER; male, Surgery)

“I know people wait until the end of the 6 months and then put it in the end of rotation report and I think that’s not much good is it?” (ID26 TrER, female, Medicine)

Accusations

A number of trainers reported that they thought that one of the reasons that trainers are reluctant to address issues that a trainee is having is due to the possibility of the trainer subsequently being accused of inequality, bullying or racism.

“A number of reasons I think particularly with female trainees and male colleagues they are a little worried they’re going to get accused of bullying or being unfair and that did happen...” (ID45 TrER; female, Medicine)

“We are all aware of plenty of horror stories of trainers who raise serious concerns about the performance of a trainee and that it was turned around and they [the trainer] were accused of bullying or even worse suspended from practice because they [trainee] maybe said that the trainer was either racist or sexist or both and that’s why they didn’t like them” (ID49 TrER; male, Medicine)

“Nobody likes to be seen as not very nice, you know you’ve got the person sitting in front of you there’s maybe a pressure to not be horrible...you’re worried about being accused of bullying the trainee, I’m not personally, but I think people are worried that if they go in too strong that they are going to, not just from a racist point of view, just from a workplace point of view ...I suppose it’s a human nature thing people just don’t like being perceived as unkind” (ID38 TrER; male, Medicine)

Lack of evidence

Trainers reported that there was reluctance on the behalf of some trainers to bring issues to someone's attention and commit themselves to write issues down. Once something is written down and can be used as evidence it becomes 'real' and someone has to take those issues forward. This reluctance may be due to the issues raised previously around the time it takes to support trainees, being accused of inequality, racism or bullying or they may not feel they have enough evidence.

"We've had a few trainees where consultants haven't wanted to put any comments, any negative or what might seem negative comments on assessments on the portfolio, so they have said they are fine and sign them off, you look at the assessment and they are okay, you look at the MSF and it's a different person. So often it depends who is doing assessments, writing comments and feedback" (ID17 TrER; female, Medicine)

"I've always struggled with as a consultant, with colleagues and as a trainer is how bad is not good enough" (ID27 TrER; male, Surgery)

"When you talk to people 'well can you please put that down in writing', 'oh I'm not sure about that because...' to commit themselves to something they maybe are thinking actually is this really evidence, is this really what I mean, and then they start doubting themselves and then actually 'I can't put this down, I'm not sure about this'" (ID42 TrER; female, Medicine)

Reputational damage

Trainers also thought that part of the issue was that trainers felt if they raised issues, it could be a negative reflection on them as a trainer. If a trainee is a senior trainee, then it becomes more difficult to address because there is a perception that 'well is it me? No-one else has picked issues up and they've got this far in their training'.

"They're worried about the spotlight being put on them rather than the trainee" (ID8 TrER; male, Medicine)

"It seems like the culture has changed the last five years that trainees challenge you a lot more than they used to. I'm not saying that's a bad thing but you should be able to feel comfortable raising things and not feeling a bit defensive yourself" (ID24 TrER; female, Medicine)

"One of the challenges is having someone as a senior registrar training who's actually already been through core training and has passed their membership exam, so you feel that if you are then constructively critical of them it's like well this person has already satisfied various previous trainers and also Royal College competence, it's almost like saying they are all wrong... so that can be a bit uncomfortable...so you're worried that people will see it as a problem with you..." (ID49 TrER; male, Medicine)

One trainer also reflected that it might affect how other trainees perceive them as a trainer if they gave challenging feedback to a trainee.

“Trainees might worry if I did pick up any issues with the trainee then how will that impact on my role with other trainees that might come? Might be branded as being very strict or things like that and what sort of feedback they might get from the trainee some of them might take the easy route” (ID51 TrER; female, Medicine)

Improving culture of failure to fail

Some trainers did feel that trainers were getting better at identifying and bringing any issues to the trainees' attention. They commented that trainees are receiving more feedback in a timely way and that trainees are being picked up further on in their training, whereas previously they may not have been.

“Think we are getting better and I think in years gone past everyone would bury their heads in the sand with a difficult trainee and just pass it on to the next supervisor unless there were really major patient safety concerns and things but I do think we are being more proactive” (ID23 TrER; female, Medicine)

“I think most departments, especially now as people are so much better at this [reporting issues] are pretty good actually and then they get into trouble for something they recognise it and try to fix it...” (ID3 TrER; male, Medicine)

“And the trainees that are 5/6 years down the line. I don't know whether the right phrase is victim but it is being highlighted more and they have got further on in their training without being evidenced.

Where now it's far more likely to be picked up earlier or commented upon earlier" (ID42 TrER; female, Medicine)

6.3.4.2 Previous signs of difficulty

Some trainers commented that difficulties and issues with trainees could be traced back to their medical training but may not have been acted upon.

"I think her insight, she didn't have much insight...and it's interesting to look back at the feedback she'd had, the feedback from her previous consultants back there [in her own country] even from her first and second year in medical school were subtle things on her feedback, concerns highlighted but not, they were overall concerns. It's interesting how she had threads of concern all the way through medical training" (ID17 TrER; female, Medicine)

"I did understand that it's been a recurring theme for like you know, however many years like six years, seven years now my medical training and my portfolio has been a bit shoddy and this was the first time they'd turned around and said, look listen you know you really need to pick this up and sort it out instead of just bumbling through and continuing the same way, so I think it, I think it was good that they, there was some positive, yes, they were making a positive intervention" (ID20 TrEE; male, Medicine)

6.3.4.3 Passing information from one placement to another

In general, trainers reported that they thought that the passing on of information from one placement to another was important to help support the trainee. However, there was some confusion around how much information should be shared.

“I think if a trainee is identified to have a specific need or requirement at a prior placement then it is imperative that the supervisor at the next placement understands that well ahead of time...I think it’s important that those anxieties are taken very seriously and that measures are put in place speedily as can be to try and address those issues...and how the trainee can best be helped” (ID16 TrER; female, Medicine)

“You want the trainee to be able to start with a fresh piece of paper, but actually if there are significant issues in the past you need to know about them. Otherwise you are at a disadvantage, quite a big disadvantage” (ID24 TrER; female, Medicine)

“I think people need a bit of guidance because it confused me sometimes and this is where I think a bit more help to do it. You know how much information have you got on a trainee that’s in a bit of difficulty...is it better to make sure the next department receiving them knows as much as possible or say ‘well actually give them another chance, a blank sheet because sometimes we’ve got it wrong’...a bit confused as to what should be done” (ID3 TrER; male, Medicine)

Information was not always passed on from one placement to another and this caused some difficulties for the trainers and the trainee. Information on trainees with differing training needs entering specialty training from foundation programme was reported as lacking.

“Where we don’t have good TOI (transfer of Information) process at all out of foundation programme and into specialty training, there’s no process whatsoever...unless you appeared somewhere in a complaints procedure...” (ID46 TrER; male, Medicine)

Some trainers reported that picking up the phone to a trainee’s previous educational supervisor and having an informal discussion was helpful to gauge previous issues and best ways to support that trainee.

“I think there’s a problem with information not being passed on and certainly the more experienced I’ve become with this sort of thing, if we pick up even a slight issue now the first thing I do is get on to the education supervisor who had them in the last post just to see what had gone on before and whether anything had been picked up and if anything had been done about it” (ID20 TrER; female, Medicine)

“It encourages other supervisors to communicate with each other, so the, you know if I’m clinically supervising somebody I can look and see who their educational supervisor is and who the next clinical supervisor is so you can either sort of a quick email or a phone call sort of have a conversation about something that you’ve not been happy with ...” (ID31 TrER; female, Medicine)

However, some trainers felt that knowing too much information was not a good thing as it may bias or change people's perceptions about the trainee.

“Personally I don't like being talked to about a trainee in the corridor. It's nice to know but some people seem to know everything about that trainee and they seem to feed other consultants” (ID18 TrER; female, Medicine)

“Although sharing it with other consultants is good, sometimes it can make a mountain out of what isn't a mountain or a molehill and it can upset the trainee” (ID21 TrER; male, Surgery)

6.3.5 Negative behaviours

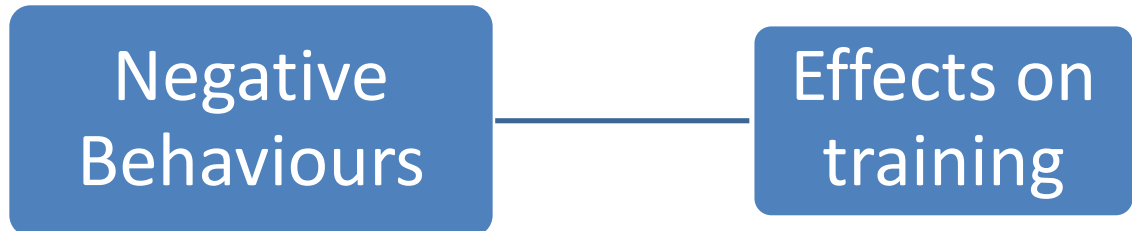


Figure 15 shows the category 'Negative behaviours' and the sub- category

The following sub category emerged from the data, which affected doctors having difficulties progressing through their training.

- Effect on training

Both trainers and trainees commented on negative behaviours within the training environment and how this had negatively impacted upon them personally, or that they had witnessed negative behaviour.

6.3.5.1 Effects on training

Several trainees commented on negative behaviours within their training environment and how this had impacted upon their training and motivation to continue within medicine. Trainees commented that the culture within the NHS was not always open to changing negative behaviour and that there needed to be more support and better role models.

“If you were to make a complaint in the NHS I seriously, I mean I hate being in this position because I’m the sort of person that wants to report things that are wrong but I’ve been made to feel like I’m wrong for reporting it” (ID16 TrEE; female, Medicine)

“A boss who was basically a bully...there’s no appreciation of what I’ve been through with the bosses and some of their comments are relatively derogatory...” (ID18 TrEE; female, Medicine)

“So in the end that was like a mental illness from just going to work, it was mad, it was actually quite scary the sort of result of the e-portfolio and also working at the unit, working in a unit where bullying there is their endemic” (ID26 TrEE; female, Medicine)

“I don’t think we’ve got particularly good role models on what is acceptable behaviour and still there’s quite a bit in the NHS that the more you shout and the more you misbehave the more you get, which is a bad model to put over but sometimes you’ve got to do it” (ID27 TrEE; female, Medicine)

Trainers also highlighted that they recognised negative behaviours within the training environment. Some trainers commented that if a trainee was in difficulty then they were more likely to experience negative behaviours, thus perpetuating the difficulties.

“I mean bullying and stuff is still going on in various places... part of that is if you were a very good trainee it’s less likely for you to be bullied but if you’re an average or a trainee who’s not performing as

well then you become a target for criticism or bullying, I say” (ID13 TrER; male, Medicine)

“I’ve seen some of their behaviours of their consultants on the ward rounds and I thought, hmm, you seem to think it’s ok to admonish your trainees publicly and I wonder how supportive you would be of a trainee in difficulty” (ID55 TrER; female, Medicine)

“We effectively work in a league table based system and so we will rank and file our trainees. So if we’ve got 5 registrars at any one time we will say ‘he’s the best, she’s good, he’s terrible, she’s never going to make it’ and that’s just the nature of surgery because we’re all dinosaurs and we’ve been through a training system where we had to do that we think like that” (ID35 TrER; male, Surgery)

6.3.6 Summary of training environmental factors

A high-pressurised environment can have a negative impact on trainees’ progression. There are a number of contributing factors that have been identified as acting as barriers to successful progression through specialty training. These are the training system itself, academic performance indicators, catching issues early on, academic performance indicators, feedback and negative behaviours within the training environment.

The training system itself can have an effect on the progression of trainees. There is a dichotomy between training versus service provision. For example, meeting the expectations of consultants and service delivery with

the expectations of the trainee and their training can often be in conflict. Trainees commented on the inflexibility of the training, which could have an impact on entering specialty training and potentially lead to burnout in the future. Trainees likened their training to a treadmill. Trainers commented that the choice of specialty that trainees made could have an impact on a trainee's progression. If trainees are in the wrong specialty, then they may not engage in the training. A small number of trainees who commented that they had changed their specialty choice during their training because they felt that they had been in the wrong specialty, and consequently they had not engaged in the training, also supported this.

Trainers commented that trainees had to choose their specialty early on in their training (possibly too early) and may not be making the best-informed choices and their skills and attributes may not match that specialty.

Trainers commented that their number one priority was patients and training second. Some trainers thought the training system was too lenient on trainees and that they were given too much support and leeway, especially if there could be a potential patient safety issue.

Overall, trainees reported having very good supportive supervisors and social support that had made a big difference in supporting them through a difficult time. Trainees and trainers highlighted the importance of having a good relationship with a supervisor to be able to approach them to talk about any issues. However, it was also recognised that approaching someone you

do not have a relationship with is difficult. There were mixed reports from trainees on how supportive their educational supervisors had been.

There are several ways that trainees can show their progression, such as being observed doing assessments related to their curriculum, completing their portfolio, and passing their membership exams and their ARCP to progress to their next level of training. Trainees commented that they sometimes found it difficult to get assessments signed off due to service provision taking precedence, although in some cases they commented that they were learning a lot. It is important to understand the context of the training environment in which the trainee is working. The ARCP process is changing and has been centralised and one could argue that the local context may not be fully understood. This may have negative implications for the trainees.

Both trainers and trainees highlighted the difficulties with the assessment format not being sensitive enough and often being too rigid.

Trainers reported that the ARCP process was a good way of highlighting any issues that trainees may be experiencing. However, trainees and trainers commented that the process may not pick up trainees who are good at completing paperwork but may not be good in practice, highlighting an issue about what makes a good doctor. However, some trainers and trainees reported that the ARCP process was very stressful. Failure of membership exams was the main reason trainees received an adverse ARCP exam in this study. Trainees commented that the timing of the exams was stressful. Trainers commented that exams often detracted from trainees learning in the

clinical environment. Trainees saw peer support as invaluable in helping them revise for and pass their exams.

There were mixed feelings about portfolios (e-portfolios) from both trainers and trainees in relation to what makes a good doctor. For example, trainees may be good clinically but not very good at evidencing this, or it could be the other way round. Trainees commented that service provision often took precedence over completing their portfolio, although they felt that they had developed as a doctor. Trainers reported that portfolios were good for providing evidence of trainees who were having difficulty and were easier to identify and support. Several trainers discussed issues they faced around giving challenging feedback, especially if trainees did not engage with them or trainees lacked insight into their difficulties. Trainers are primarily trained in clinical skills and providing challenging feedback did not always come naturally to them. There were issues around who was providing the feedback and whether the trainee has a working relationship with the person providing the feedback as it was more likely to be taken on board if this was the case. The timing of when feedback was given was also a consideration and it was more likely to be taken on board if given immediately or very soon after the event, so that trainees had a better recollection and understanding of why they were receiving it. There was a difference in perception about providing feedback earlier. Both trainers and trainees voiced their frustration that trainees did not receive feedback earlier on in their training so they could address any issues. Trainers reported that there were incidents where challenging feedback and issues with trainees were discussed with other trainers but not written down formally. Trainees, on the other hand, reported

that trainers would give negative feedback retrospectively in a written format rather than at the time of them doing a procedure. Interestingly, trainees and trainers reported that it was often difficult to give challenging feedback in smaller specialties where trainees and trainers worked closely together, or if trainers were both clinical and educational supervisors.

Trainers voiced that they thought that providing feedback had improved because there had been an increase in training on feedback. In addition, assessment tools had improved and provided evidence on which trainers could base their feedback on. Trainees were also more used to receiving feedback. Providing feedback to overseas doctors was often seen as more challenging. Some trainers also commented that difficulties and issues with trainees could be traced back to their medical training but may not have been acted upon.

Passing information from one placement to another was seen as important to help support trainees. However, there was some confusion about how much should be shared. Sharing of information between foundation and specialty training was found to be lacking.

Many trainers and trainees mentioned the existence of a failure to fail culture. Many trainers commented that they knew trainees who should not have been allowed to continue in their training without some intervention. Reasons given for this were the time it takes to support a trainee in difficulty, reluctance to mention it until the end of the trainee's placement and thus making it someone else's problem. Other reasons cited were that they may be worried about accusations of bullying, racism or inequality, and they may not feel they have enough evidence or may occur reputational damage to

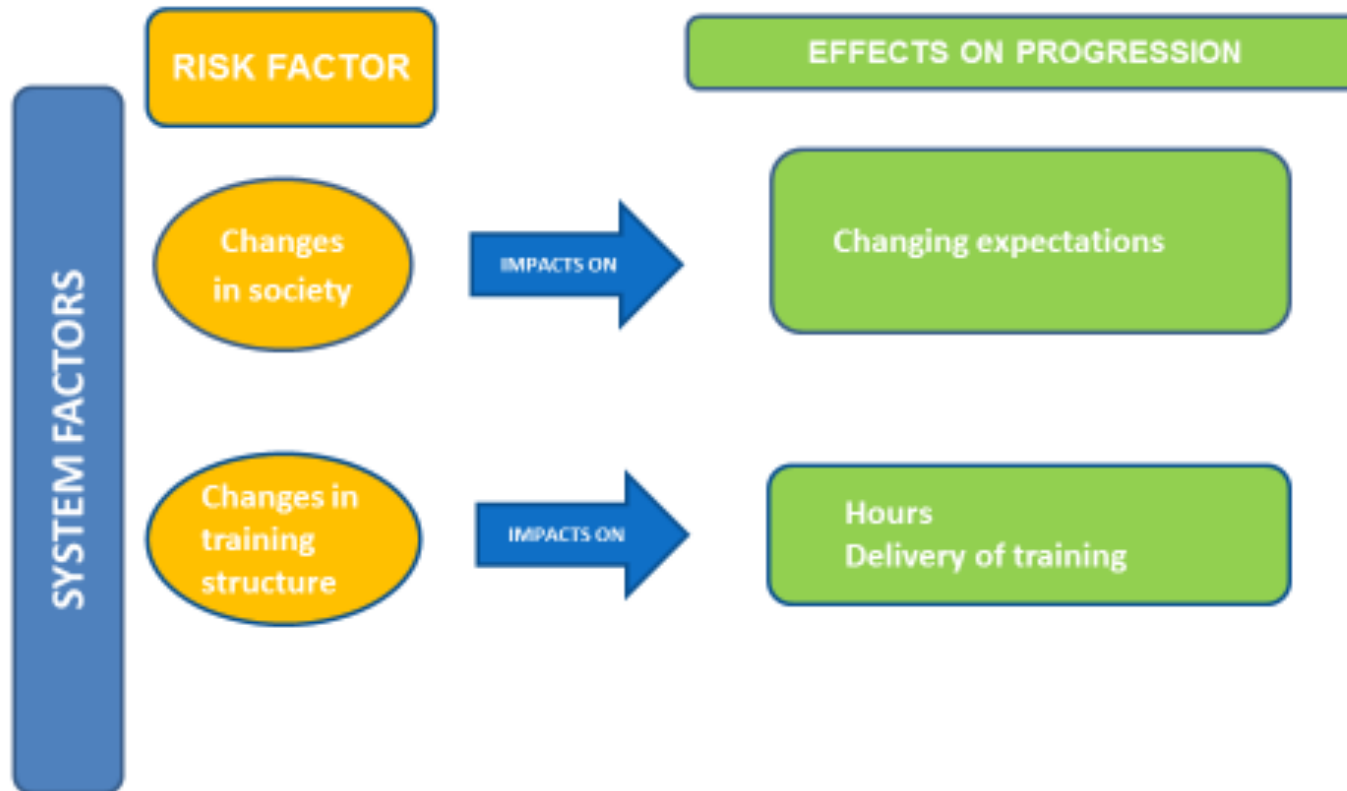
them personally. Several trainees also reported that negative behaviours within the training environment had affected their training experience.

6.4 Systems Factors

The following diagram 6 shows the grounded theory-coding framework for the core category – system factors.

Diagram 6: shows the Grounded Theory coding framework for the core category – Systems factors.

System factors



6.4.1 Changes in society



Figure 16 shows the category 'Changes in society' and the sub-categories

The following sub themes emerged from the data, which affected doctors having difficulties progressing through their training.

- Changing expectations

6.4.1.1 Changing expectations

Several trainers commented that society has changed in terms of expectations of what the NHS can offer, which has had a knock on effect on medical trainees and their expectations of training. There was a difference in perceptions between some trainers and trainees. Some trainers felt that there was an

expectation from trainees that they will be trained and that they do not have to take responsibility for their training.

“Been a large attitudinal change within society but within the medical fraternity there’s a sense of entitlement amongst trainees that they deserve this without some of them being prepared to actually chase the work and then for those trainees when it is pointed out to them that, why haven’t they done enough work place based assessments then some respond to that which is good and some don’t respond to that or become threatened or stressed and have a period of time away from work and that leads to a bit of a spiral” (ID4 TrER; male, Surgery)

“In society generally there’s this expectation that the health care is free and that you can have whatever you want and it’s that, you’ve paid your taxes and there’s just all the NHS owes a duty of care to you but without any necessary personal investment in terms of good behaviour, turning up for appointments or anything else and within medical school and within our trainees now, trainees expect to get far through training so their training time is never endangered by position of service and then there’s the real world” (ID44 TrER; male, Medicine)

However, some trainers and trainees commented that they recognised that trainees were under pressure due to the competitiveness generally within society but also in the training schemes, which was not the same as when trainers had been starting out in their training.

“There’s pressure on young people at every stage now, it’s not even when they are at primary school it’s just not good enough to pass, to be academically gifted you have to do all these other things that mark you out as an outstanding person...I think you know trainees are under pressure” (ID55 TrER; female, Medicine)

“A lot of it is maybe like a British medical thing, you know make do and mend, get on with it, chin up. Maybes some of it is that...it’s so high pressurised and you’ve got, from day one you are surrounded by impressive individuals that have done impressive things with their lives. And you aspire to be like them and if you fall anything short of...unfortunately you spend your life comparing yourself to other people” (ID14 TrEE; female, Medicine)

6.4.2 Changes in the training structure

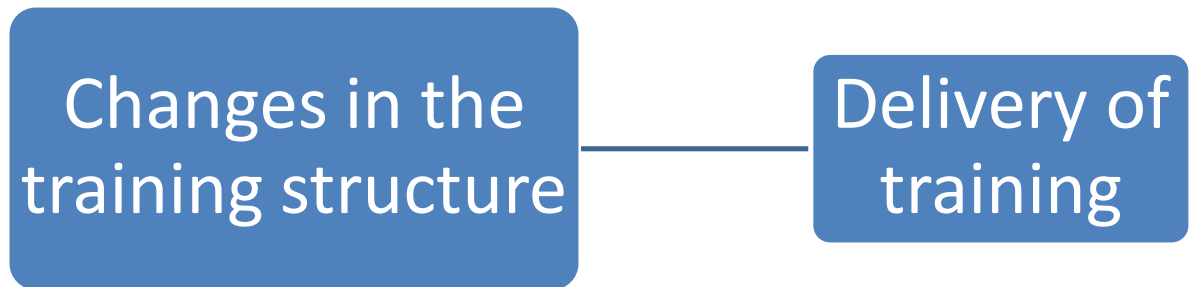


Figure 17 shows the category 'Changes in the training structure' and the sub-category

The following sub category emerged from the data, which affected doctors having difficulties progressing through their training.

- Delivery of training

6.4.2.1 Delivery of training

Several trainers mentioned that medical training has changed dramatically over the past decade with the change in hours and loss of 'firms' (working in the same ward with the same team) which has resulted in an increase in work intensity and also impacted on trainees being supervised and issues being picked up and communication between senior doctors.

“We used to have what they called firms, in other words 1 or 2 consultants tended to work together and they had a team of doctors that were fairly consistent with them throughout a 6 month or even a year period...some consistency with who you work with” (ID19 TrER; male, Medicine)

“I think training has changed so fundamentally and so dramatically over the last decade and expectations from training as well...they are both positive changes to come out of the changes but also some sort of negative things as well we were probably left to get on with things a bit more and they’re not given that opportunity to be independent that maybe we were” (ID32 TrER; female, Medicine)

A small number of trainers reflected on how it is hard to relate their own training and standards to that of their trainees now because the training and assessments have changed considerably.

“We haven’t had anything like this as junior doctors, I can’t remember whether there was some sort of behind the scenes marking was going on...so I reflect back because most of the generation of older consultants haven’t had, kind of, portfolios or anything like this, it’s hard for us to think gosh, I was at this stage at this bit of training and the way of assessing has changed hugely” (ID5 TrER; female, Medicine)

6.4.3 Summary of systems factors

There were two main barriers to training which were found to be contributing factors to a trainee's progression through specialty training. These were changes in society and changes in the training structure.

Trainers commented that society's expectations of the NHS had changed. There seemed to be a feeling of entitlement from trainees in terms of their right to train but also from the public in terms of not taking responsibility for their own health. There was recognition from both trainers and trainees that the environment was very competitive and that trainees were under a great deal of pressure to do well.

The training structure had also changed considerably in recent times, with a decrease in hours, also trainees no longer stay in the same team throughout their training and move around a great deal. Trainees also commented on the great number of changes which have taken place within the curriculum and assessments.

6.5 Enablers

- Encouraging positive role models
- Reframing issues experienced
 - Reflecting on ARCP outcomes
- Plan for exams and use study/peer groups
- Engage with training and portfolio systems
- Taking time off when it is needed
- Engage with training and portfolio systems
- Coaching and mentoring
- Returning to training following absences
- Less than full time working
- More timely feedback
- Available support
 - Support for study leave
 - Additional support
 - Support for overseas doctors
- Support and training for trainers

There were several areas and suggestions from trainees and trainers for improvements which could be made to help doctors who are having difficulty in their training. There were several coping strategies and areas that had helped them or that they wished they had had done in hindsight from a trainee's point of view.

6.5.1 Encouraging positive role models

There is a real importance in fostering and providing positive role models from seniors. Some of the professionalism skills could be role modelled.

There was also the importance of having positive role models and for trainees to recognise and hear that seniors may have had difficulties in the past but have overcome them and progressed.

“People who have been there who have done that, who have earned their stripes and have actually moved on. To actually take a positive model as to what is it that has made them click so I think the focus has in the past and rightly so has been about why do people fail but instead if you turn that around and say why do people succeed despite coming up with lots and lots of difficulties, lots of hurdles, what is it that makes them tick”
(ID22 TrER; male, Medicine)

6.5.2 Reframing issues experienced

Trainees’ ability to learn from and to overcome a difficulty is a valuable learning point. Some trainers commented that trainees often felt that if they had been given an extended period of training then this was seen negatively and as a failing. However, there are many reasons why a trainee may receive an adverse outcome. Moreover, it is the way a trainee views that outcome and how much resilience they show that is important. It was reported several times that postgraduate (run through) training is very short now. Therefore, if a trainee has

been given additional time then this should be viewed as a positive opportunity. It is having the ability to turn a potential negative into a positive. Trainees may need some support and coaching to be able to do this.

“I think most trainees now feel that it’s a personal failure if they don’t advance through all the hoops...I think they need to understand as well that circumstances may have prevented them and it’s not a failing, they should see it as an opportunity which your colleagues haven’t had, you know training’s short but you’ve been given extra time so use it well”
(ID13 TrER; Male, Medicine)

“In some ways life experience does make us better doctors you know, I mean I have had physical problems and I’m sure it makes you a better doctor...I think that not sort of just sailing through training and everything going you know, absolutely according to plan it can, and it makes you reflect more on your practice...” (ID20 TrER; female, Medicine)

Several trainees who had received targeted or extended training as an outcome from their ARCP felt that they had learnt from the experience and had come out of the other side a better doctor for it. Trainees felt that the additional experience was beneficial and that they could use their experience of having difficulties in their training when they were a consultant and educational supervisor to help support and understand their trainees. They also commented that they had learnt more about themselves. Interestingly the trainees who had commented and reflected on this were all male trainees (n=4).

“Having a wakeup call...having an outcome 2 [targeted training] was helpful for progressing, because I knew that I had to do what I needed to do for each year in a better way...When I’m a consultant and I’m supervising trainees I will be able to say ‘well I had an outcome 2’ it was actually quite effective and helpful so don’t necessarily have a negative view of it. Has it improved me? I think it has as a supervisor because I can understand a lot more whereas if I’d not gone through failing when it came to a struggling trainee I wouldn’t know how to sympathise with them, whereas now I will” (ID15 TrEE; male, Medicine)

“I can’t blame it really on them, anyone else except me really, like every year I paddled alone and the majority of time I passed, they commented my assessments were late on...I think it’s more a behavioural trait in myself...when they gave me an outcome 2 it felt supportive it didn’t feel like a lynch mob or anything” (ID20 TrEE; male, Medicine)

“I’m actually lucky, quite pleased that I had that extra year cause it gave me a little bit of extra breathing space to get more experience, work out what I was doing and although it can be viewed as a negative thing it’s not quite failure to think you need extra time but it’s a disappointment because you just plan on progressing through with everyone else...it means I have a bit more experience under my belt, I know a bit more about myself and what kind of consultant I want to be...” (ID22 TrEE; male, Medicine)

“I think I’m through the other side of it, it’s actually quite a positive thing, you know I got an extra 6 months you know, an extra 6 months experience certainly won’t do me any harm and you know sometimes coping with a bit of adversity in life isn’t necessarily a bad thing. For that first 6 months I would have told you it was the worst time in the world but looking back on it now I obviously it’s been a positive experience for my career” (ID31 TrEE; male, Medicine)

“I’ve come out the other end and I guess if you were told that if people had said ‘it’s fine you’re still going to be a doctor’; it’s not going to impact long term” (ID11 TrEE; female, Medicine)

6.5.2.1 Reflecting on ARCP outcomes

Some trainees commented that it had been helpful to think positively and reframe the fact that they had received an adverse ARCP outcome. They observed that if they are given extended training then see it as an opportunity that their peers do not have. Everyone learns at different paces and life events can happen to anyone but it is how one deals with them.

“it’s not the end of the world, it’s not a negative thing which is the automatic; ‘oh no I’ve failed’ say ‘well now that isn’t the case it’s an opportunity to make use of extra resources’ that most of us are not aware is available and if we were aware we’d want to tap into it more. A lot of

psychology of failing isn't very well done by doctors because they're not used to failing..." (ID15 TrEE; male, Medicine)

6.5.3 Plan for exams and use study/peer groups

Many of the difficulties experienced by trainees were related to exams, portfolios and assessments. Comments were related mostly to the time pressure of taking the exams and if they had planned and spaced them out then they may not have struggled as much. Therefore, trainees conveyed the importance of planning when to take exams and to start early on in your specialty training. Some trainees also commented on the importance of study groups and skills courses. Some trainees commented that they had organised peer study groups, which were important and had helped.

"try and get your exams done as early as possible" (ID12 TrEE; female, Medicine)

"you need to start your exams soon as possible..." (ID23 TrEE; female, Medicine)

"not leave it as I had...I wonder if a study skill course might have helped me particularly after my second time where I felt I'd done 6 months of quite hard intense revision and then still hadn't seemed to have picked up the knowledge that I needed..." (ID31 TrEE; male, Medicine)

6.5.4 Engage with training and portfolio systems

Trainees also reported on the difficulty of completing their assessments for their portfolio. This was mostly related to the busy environment within which they worked. They also pointed out the importance of engaging with the portfolio and planning their assessments and spreading them out over the training year.

”Do these assessments and do them consistently over a six-month period is basically what it boils down to. That allows you to show progression in you because even if you are crap at the start as long as you’ve improved by the end that’s fine, I suppose no fighting against the portfolio constantly, not seeing it as your enemy...” (ID20 TrEE; male, Medicine)

“I think the problem is so many people are really polite and they look at a busy clinical environment and they think ‘oh god, you know ...I can’t possibly get time for assessments that just keep making that mistake and it might be true but it’s not going to help your training and you really just have to bite the bullet and say look I really need to get this done...you have to have the confidence to say to clinicians ‘how am I doing? Is this ok?’” (ID21 TrEE; female, Medicine)

6.5.5 Taking time off when it is needed

Several trainees also highlighted the importance of recognising when to take time off when it is needed and feeling comfortable to be able to do this.

“Don’t be scared to take time off and don’t be scared to ask for time off. Because in retrospect, in hindsight that’s what I should have done...”

(ID12 TrEE; female, Medicine)

“Stick to your career as you would want and allow yourself career breaks ...if anybody questions your career as you would want to and allow yourself to have career breaks and if anybody questions your career breaks I think you’re more than able to justify them with a reflective practice and the contemplation that occurs, that little bit of distance gives you, whereas it’s much harder to get that reflection and to obtain that distance when you’re still in the job” (ID29 TrEE; female, Medicine)

6.5.6 Coaching and mentoring

Both trainers and trainees mentioned coaching and mentoring several times as a good way of offering support for both trainees and trainers.

“maybe things like coaching which is becoming available yet again I think is a great idea cause I think that those trainees that are struggling coaching can be really valuable” (ID23 TrER; female, Medicine)

“I would love to be a mentor not only to trainees that are going through it but also to the trainers...for people coming back from maternity leave, because there are other women out there...” (ID18 TrEE; female, Medicine)

“I think we ought to be thinking of some kind of, at least guidance for less than full time trainees, or trainees who feel a bit over whelmed...a mentoring process...” (ID10 TrEE; female, Medicine)

6.5.7 Returning to training following absences

There needed to be additional support and understanding for trainees who were returning to training following a period of absence, whether this be maternity leave or due to bereavement or sickness. This could also be put in place for trainees who have been absent from clinical work for academic research purposes.

“if the [HEE regional office]] could set some sort of, it’ll probably rarely happen, but just some sort of system for people coming back after a break, such as shadowing for a month, that would be fantastic even if it was unpaid because that would have reduced my stress levels ... a named person that you can discuss, it might be another doctor, a senior doctor who’s worked part time or somebody that you can just have a base, you know of like discussing specific things about part time work” (ID28 TrEE; female, Medicine)

6.5.8 Less than full time working

Balancing working less than full time was often viewed as difficult. There was a need for more understanding within the training system about working less than

full time. One trainee commented that some guidance on supporting trainees who work less than full time would be helpful.

“Learning to say no I think is quite important and I think that’s very difficult when you start out in the training programme, So I think we ought to be thinking of some kind of, at least guidance for less than full time trainees, or trainees who feel a bit overwhelmed” (ID10 TrEE; female, Medicine)

6.5.9 More timely feedback

Both trainees and trainers reported that feedback was not always given in a timely fashion, either not at all or some time after the event. Therefore there is a need for more timely feedback, which is given in context of the learning so that trainees understand why they are being given that feedback and can change something if required.

6.5.10 Available support

6.5.10.1 Support for study Leave

Having the provision of study leave to be able to study for the membership exams was seen as very positive and valuable support. It enabled trainees to have time out of the day job to be able to revise for the exams. Some trainees also mentioned specific revision courses being useful for helping with revision for exams.

“The deanery were quite good they helped out with the exam, they rostered extra revision sessions... I got lots of study leave.

Personal/private revision leave as well so I did plenty of time just to focus on the exam as well rather than being at work every day, they gave me a couple of weeks off just to purely revise which was really helpful, it took a lot of pressure off” (ID17 TrEE; female, Surgery)

“They placed me at a hospital where there was a really good support network and the hospital was basically told yes I was there to work on their rota, but their rota had to accommodate me being able to study for passing the exams so I was there purely and simply to just continue my training but my main priority was exam passing...so I didn’t have any trouble revising for it” (ID23 TrEE; female, Medicine)

“Certain people have gone their own way and decided not to go on, there’s the old revision course that they’ve set up which is very ... specific, so specific for the final bit of the exam and that does help because they reproduce the kind of pressure and the one on one situation, it’s actually two on one, there’s you and two examiners and a patient or you and two examiners and a computer screen, so I think those, those revision courses are good, they’re useful, some people have decided not to do it and I think regretted it” (ID24 TrEE; male, Medicine)

“[They] don’t usually let you go have private study leave but if you’re struggling with exams like I was they gave me private study leave which they were very generous with, any courses and things I wanted to go on (ID31 TrEE; male, Medicine)

6.5.10.2 Additional support available

Several courses and counselling support were offered, which trainees commented were helpful, such as Cognitive Behavioural Therapy (CBT) and time management courses.

“They [Deanery] also recommended current CBT therapy for revision which I was a bit sceptical of at first, I did do it and it seemed to help. Just plan a bit more of a, a little bit more than a teaching plan but more of a positive mental attitude, so yeah, they were quite helpful” (ID17 TrEE; female, Surgery)

“I think it definitely helped during the time. I have to say the trainee support service they were really, really helpful and the lady, I can’t remember her name, that was helping was really very good. I think she was so helpful that she made the rest of it less stressful, to put a human face to the whole process” (ID15 TrEE; male, Medicine)

“They do appreciate good time management and they have said that on the ARCP before, each time a trainee goes to a panel, they’ve done everything on their portfolio last minute they have to do a time management course now. So it’s quite useful to just do little bits right at the beginning and often just little bits” (ID18 TrEE; female, Medicine)

6.5.10.3 Overseas doctor support

There was a general feeling from trainers that trainees who had graduated from overseas needed additional support to help with the transition to the UK lifestyle and workplace.

“I did one of the assertive communication skills and culture influence training. I found that extremely helpful and supportive” (ID27 TrEE; female, Medicine)

6.5.10.4 Support and training for trainers

Trainers often referred to training they had received on doctors with differing training needs. Overall, the trainers commented that the training that they had received and the support from the training programme directors (TPDs) and Health Education England regional office had been good. However, there was a feeling that experience of being in this situation was the main way of learning, and that every trainee presents with different difficulties. There was also the feeling that training could not change the additional challenges around managing doctors who are struggling, such as time issues, providing

challenging feedback especially when the trainee has a lack of insight into their issues or is unwilling to engage with any feedback.

“I’ve obviously attended training on doctors with differing needs and I try to recognise these problems as they arise...” (ID16 TrER; female, Medicine)

Some trainers reported that they often found it difficult to give challenging feedback and often felt ill equipped to do it. Trainers felt that some additional training and support would be helpful in this area. Several trainers reported that they would find it difficult to deal with a trainee who lacked insight, suggesting that there may be an additional training need for trainers.

“Better training for communication” (ID39 TrER; male, Surgery)

“support for training departments or units where they are not giving feedback they should be giving and they are failing to fail people...so it’s how you support those training units as well maybe the difficulty for the trainee was not them it was the department they were in” (ID17 TrER; female, Medicine)

6.5.11 Remediation

When discussing and planning support and forms of remediation it should be taken into consideration that one size does not fit all. It may be that trainees are given study leave but that is not always appropriate – they may need to be guided in their exam revision and given some mentoring or support. It may be

that trainees need to be in the clinical environment and therefore being removed for study leave would not necessarily help a trainee. There needs to be a menu of remediation options available so trainees and trainers can choose the most appropriate one for the trainee's needs and wants and for the situation.

Remediation needs to be discussed with trainees so that they are more likely to be on board with the intervention that is put in place. It is important as well to make sure that the perceptions of what the issues are is discussed between trainee and trainer or ARCP panel to make sure that the intervention is the right one to tackle the issue.

“they're picked up but they're difficult to rectify, I find particularly some of the communication issues, I mean some people genuinely don't realise they're doing it and it can be dealt with, but other people get sent on training support and go on the appropriate courses and all the rest of it, but still don't seem to get it, that's a personality thing I presume” (ID39 TrER; male, Surgery)

“I really don't realise they are struggling and that's always more difficult and they are always going to be more difficult to remediate. Doctors that think they're god and they really have no insight and they really have no insight they are the dangerous ones aren't they and dangerous whatever happens...” (ID19 TrER; male, Medicine)

“the first time I came to realise that I was a valued employee and you know when I was struggling a bit I wasn’t just thrown on the scrap heap and had my contract terminated, I really did feel that both the deanery and the Northern School of [specialty type] wanted me to get through and you know, to keep me on and I think actually knowing that you’re a valued employee kind of helps your motivation to get through these things” (ID31 TrEE; male, Medicine)

6.5.12 Summary of enablers

Reframing issues and helping the trainee to understand that some people take longer to progress through their training, and that this was not necessarily negative, was seen as an important enabler to training and would help to break down negative perceptions within the training culture. Receiving additional time to train and practise, especially as run through training is very short, was viewed by many trainees in hindsight as helpful in the end to be a better doctor now, but also in the future. This particularly applied to when they became educational supervisors and they would be able to understand better their trainees, having been through difficulties themselves. This would also help instil positive role models within the training culture.

Planning for exams and using study groups, engaging with training and the portfolio system were also seen as important. Taking time off when it is required

for illness or following bereavement and feeling comfortable within the training environment to do this when it is needed was deemed as important, especially for a trainee's wellbeing and potentially the safety of the patient and doctor. Coaching and mentoring were mentioned by both trainers and trainees as they were a good way of returning to training following a period of absence, for example following maternity leave. It is important to recognise that it is difficult coming back into training following a period of absence. More support and integration are needed to ease the trainee in more gently. Additional support and courses were mentioned as helpful. Trainers and trainees reported that feedback needs to be given in a timelier fashion. There also needs to be more guidance and support for trainees who work less than full time.

6.6 Conclusion

Three core categories: individual, training environment and system factors have been identified, with sub themes explaining these categories in more depth.

They have been presented as separate factors or categories but often these factors are multi-faceted and can cross between two or all three of the factors, and are often linked within a core category. For example, the personality of the trainee may have an impact on the type of specialty chosen, their confidence (either over or under confident), the way they communicate with others or engage in the training and with feedback, especially if the trainee has a lack of insight. Personality type may also have implications for experiencing higher levels of stress, which may eventually lead to burnout, particularly if the trainee is, for example, a perfectionist and has high expectations of themselves.

Personality also needs to be taken into account when considering remediation plans: for example, if trainees lack insight into their difficulties this may need a different strategy to someone who understands that they may have issues with their communication.

Contributing factors may depend upon whose perspective is being sought, for example, that of the trainee or of the trainer; for instance, there was a difference in perspective between trainers and trainees relating to confidence. Trainers reported that trainees could be either over confident or under confident, whereas, trainees only reported issues related to under confidence. There were some areas where both trainees and trainers brought up the same issue but

from different perspectives and had a different viewpoint, for example if the trainee is expecting to do some training and a consultant is expecting another pair of hands there may be a potential conflict. These differences in perception need to be taken into consideration when a remediation plan is being put in place.

A barrier which emerged from the data was the many negative perceptions and assumptions made within the training. These need to be broken down, repackaged and reframed, for example receiving targeted or extended training in an ARCP. Additional training should be framed as an opportunity to extend a trainee's training programme rather than it being seen as a failure and weakness. Trainees may need training in this area to be able to reframe and see the opportunities of, for example, extended training.

Often trainees did not want to tell trainers if they were struggling or had issues, for fear of stigma and that it would be viewed negatively as showing weakness. However, trainers felt frustrated that trainees did not confide in them if they were experiencing difficulties. Trainers viewed this as a lack of engagement and this may be the case for some trainees but not all. Some may feel they are going to be stigmatised due to the competitive environment and culture within medicine.

Resilience is an important consideration as medical trainees are often high achievers and struggle if they fail membership exams or have difficulties within a busy, often stressful, environment. There are several techniques, which can be learnt and developed, to help maintain and aid one's resilience, for example

mindfulness, breathing techniques and the ability to take a seemingly negative thing and turn it into a positive. Peer support networks and support, either social or from educational supervisors, were seen as valuable in helping with exam failure.

Assessments, exams and ARCPs were seen as stressful and adding pressure on trainees. However, trainers felt that portfolios and ARCPs provided evidence when offering challenging feedback. Both trainers and trainees felt that there was still an element of a tick box mentality when completing the assessments and portfolios and some trainees were good at playing and manipulating the system. This raises the question: 'Are trainees being over assessed in specialty training and are we assessing the right things?' And 'Does assessment deflect from trainees' clinical experience when they are jumping through the training hoops?' Historically, trainees offered service provision and learnt on the job as in an apprenticeship model, whereas now they have many assessments to complete, move around a lot more and have to work with many different people, so may not be able to build up relationships with people and have the support and camaraderie that is important.

A further question is: 'are we selecting the right people to enter a career in medicine?' Medicine is not just about high achievers but is also about thriving in a busy, often stressful, workplace environment, being resilient, and having to be flexible and adaptable whilst training. Are trainees being selected for the right personality type and for the right specialty?

Some trainers commented that the current training system may be too lenient on trainees who are having difficulties and that patient safety must take priority. It needs to be recognised that not all trainees can be helped and nurtured. There has to come a point when a trainee has to be told that medicine or a specific specialty is not for them. This would be made easier for everyone concerned if it was at an earlier stage in a trainee's career and if they have the insight to realise and understand this. The difficulty comes if there is not enough defensible evidence to be able to back this up, especially in a court of law.

There were often competing expectations for some trainees i.e. self-expectations, the training and medical culture and society's changing expectations. Trainees want to achieve a work life balance. However, this is often difficult in the medical culture with increased work intensity, negative behaviours and perceptions, for example of part time trainees being less committed than full time trainees.

Doctors in training are in a very unusual situation. Trainees have the kudos and identity of being a doctor and a professional and the public perception is that they are doing the job of a doctor but in reality they are still in training and learning. This can create difficulties for some trainees, their professionalism, and their professional identity. There were several issues raised relating to professionalism which need addressing. Some trainees were found to be lacking in these skills and may not be recognising that whilst they are still in training they are working in a professional capacity and therefore time

management and taking responsibility for and engaging in their own learning is part of their professional identity.

There were implications for recruitment and retention of trainees to specialty training. Trainees experienced and observed negative behaviours in their training environment. Trainees also observed or heard through word of mouth about negative experiences that trainees had during their ARCPs. Some trainees likened specialty training to a treadmill and felt that it was too inflexible which may put trainees off applying straight from foundation programme as they would like more 'life' experience before making a huge commitment to their training.

It is clear from the findings that the issues experienced by trainees are not homogenous in nature and that issues are multifaceted. One trainee may experience difficulty whereas another may thrive and it is hoped that the findings presented and the subsequent model have highlighted the complexity of the issues. However, that said several enablers have been identified that can help with ensuring that a trainee has a fair chance of progressing through their training.

Chapter 7 The development of a model: Core values

This chapter follows on from Phase Three and discusses interview findings in the context of individual and professional values and how this affects trainees' progression through their training. It also presents a model to help identify which doctors are most at risk of adverse ARCP outcomes. The aim of the model is to target support and improve ARCP outcomes.

7.1 Core Values

Values are the beliefs, principles and standards by which we live our lives and what is important to us as individuals. These values can influence the way we conduct ourselves, our worldview, and our attitudes. Individual values can conflict with cultural values or professional values (Heggertveit-Aoudia, 2012). Values are used to characterise cultural groups, societies and individuals to explain attitudes and behaviours. Individuals attribute different importance and priorities to values (Schwartz, 2012). Therefore, what one person views as an important value, another may not attach as much importance to it. Schwartz developed a values theory in 1992 which conceptualises six main areas of values and is used widely in the field of values (Schwartz, 2012). These are: 1) values are beliefs; 2) values refer to desirable goals; 3) values transcend specific actions and situations; 4) values serve as standards or criteria; 5) values are ordered by importance (relative to one another); 6) the relative

importance of multiple values guides action (ibid). At an individual level Shwartz, 2012 identifies ten specific values which motivate individuals, which have been found to be cross cultural (Shwartz, 2012). These basic individual values are motivators of behaviours and attitudes.

It is also important to mention that there is a distinction between values, attitudes and beliefs. Schwartz, 2012 describes attitudes as *'evaluations of objects as good or bad, desirable or undesirable'* (Schwartz, 2012, page 16). Values underpin these attitudes and offer the basis for evaluating what attitudes will be toward something (whether abstract or real). For example, if we see someone is doing something that we value then we are more likely to have a positive attitude toward it. Whereas, beliefs are; *'ideas about how true it is that things are related in particular ways'* (Schwartz, 2012, page 16) and change depending on how true we think things are. Therefore values have been described as 'critical motivators of behaviours. Most of the issues found in Phase Three data can be explained by differences in values. Values are informed by many issues: personality, family values and the values expressed by one's national culture. One's values may not be overtly recognised until they are brought in conflict or tension with other values expressed by an individual or organisation. For example, if an individual meets someone, or is faced by a situation, with a different set of values to one's own they may become more aware of their own values because of the tension or conflict. The values of 'others' are usually judged through one's own experience and values (Heggertveit-Aoudia, 2012).

The following section provides an overview of how core values can lead to value conflicts, within organisations and teams and between people, and how, in the case of trainee doctors, these could impact on their progress through their training.

7.1.1 Core values within medical education

Medical professionalism (in the UK this is informed by the General Medical Council, (see appendix 7) for a summary of the GMC, Good Medical Practice domains) can be defined as a set of values, behaviours and relationships that underpin public trust in a doctor (Working Party of the Royal College of Physicians, 2005). Professionalism is often explained in terms of a list of attributes, values and behaviours that the individuals should display to demonstrate, and maintain, their professionalism. These behaviours then act as a checklist to trainees so they can tick off the attributes to ensure they are professional. This also suggests that professionalism is something that can be achieved by education and training of the individual (Wynia *et al.*, 2014). Therefore, this means that the onus is on the individual to learn to be professional, but as Wynia *et al.* argue, it should be viewed as a way of proving trustworthiness in the medical profession (Wynia *et al.*, 2014), and is therefore something the training environment *and* society should consider as well as the individual. As Wynia *et al.* illustrate in the quote below, professionalism is complex and more holistic than merely a list of desired values, behaviours and attributes to be attained:

“Reducing professionalism to a list of desired professional principles, traits, or behaviours is akin to reducing the entire experience of cooking to checking off the grocery list while shopping. Professionalism requires behaviours, so a list of measurable professional behaviours is necessary, but the list, in and of itself, is not sufficient to define professionalism”

(Wynia *et al.*, 2014. p. 713).

However, competency in professionalism is often measured using a list of values and attributes in the context of medical education. Several core values and attributes are expected when entering medicine to demonstrate, when applying for medicine in the UK. These attributes and values will be required and drawn upon during their medical career (Medical Schools Council, 2014). The Medical Schools Council (MSC) has issued a statement mapping these core values and attributes to the GMC’s Good Medical Practice (GMP) (GMC Good Medical Practice, 2013), which is the guidance on ethical practice to which doctors in the UK must adhere. These values and attributes can also be mapped to ‘Promoting Excellence: Standards for Medical Education and Training’ (GMC, Promoting Excellence: Standards for medical education and training, 2015), which outlines the duties of a doctor and was brought into force at the beginning of 2016. The core values and attributes required in GMP are grouped under four domains, which are the same domains as outlined in Promoting excellence: standards for medical education and training’ (GMC, Promoting Excellence Standards for Medical Education and Training). Many of the core values and attributes outlined in these documents can also be aligned

to areas of trainee underperformance as highlighted in the interviews in Phase Three of this thesis. Issues on underperformance reported in Phase Three related to whether trainees had insight, took on board feedback, interacted with colleagues, patients, peers, and supervisors, and how open they were to receiving support and responding to remediation or offers of mentoring. In addition, issues of underperformance were related to how trainees responded to the transition of becoming and taking on the identity of a doctor, for example how resilient trainees were when dealing with a difficult, stressful situation, such as failing their ARCP membership exams.

Some trainee difficulties were related to having different cultural values, for example religious or worldview beliefs that were different from the main social and cultural values espoused by the NHS, medical culture and values within the training environment. For example, it may be that individual values change. For example, once female trainees have children, their core values may change from a focus solely on work to a focus on family as well and expectations may shift too, possibly placing more value on parenting and less on work, sometimes temporarily and sometimes permanently. This conflict is where problems may arise. Conflicting values are challenging and can affect all three levels identified (individual, training environment and systems) in Phase Three of this thesis, showing that problems during training cannot be solely laid upon trainees. There are pressures within the training environment, such as the increase in work intensity and the competing time pressures produced by the need to complete assessments whilst also delivering a service. There are also pressures on the

overall NHS system, such as societal changes, with the increase in an aging population and an increase in health expectations and patient involvement, which also need to be taken into consideration (Dyrbye and Shanafelt, 2016). Some of these issues are highlighted in the GMC's National Training Survey (2016), in the GMC's report, the State of Medical Education in Practice (2016), and in the BMA's report of 2016 (BMA, 2016). The issues highlighted include an increase in intensity and complexity of workloads (BMA, 2016; Dyrbye and Shanafelt, 2016), and issues related to junior doctors working above contracted hours (BMA, 2016). There has also been an increase in the number of clinical contact hours. Previously these hours would have been used for professional supportive roles (BMA, 2016). Professional supportive roles include: teaching, training, CPD, research and service development (Academy of Medical Royal Colleges, 2014).

7.1.2 Socialisation: becoming a doctor

Socialisation is the process by which people adopt the values and beliefs of the culture of a group or country. In the case of trainee doctors it involves taking on societies' and the medical communities' expectations of how one should act within that given group (Merton *et al.*, 1957). Therefore, as Hafferty and Franks (1994) argue, medical training is not just taking on the learning of new knowledge but also learning how to act as a doctor in a particular setting or context. It is the learning of new skills, for example how to become a doctor, how to deal with your feelings and how to respond to mistakes (Hafferty and

Franks, 1994). In this way trainees are taking on the role and identity of being a doctor. It is important to understand that medical education does not take place in a cultural vacuum, or in a value neutral environment. It involves learning to take on a new identity as a doctor and think differently to a layperson (ibid). This can sometimes conflict with one's own cultural values:

'The development of professional identity, or truly becoming a doctor, is central to medical students' education' (Helmich and Dornan, 2012, p.132).

Professional identity formation starts to develop during practice and when trainees start familiarising themselves with the expectations, values and behaviours of the medical culture. However, cognitive or emotional conflict may take place if personal values are not aligned with the medical culture, systems and practices (Helmich and Dornan, 2012). Trainees may be expected to comply with the medical culture, systems, and practices, but these may not fit with pre-existing beliefs of what is a 'good doctor' (Monrouxe and Rees, 2012).

If trainees do not identify with these values, behaviours and systems, and do not take on the expected professional identity, several things can occur in what Monrouxe (2010) refers to as 'identity dissonance'. When this occurs, trainees do not engage in the professional role, may display inappropriate professional behaviours and may change careers. In a study conducted with third year medical students on the conflict between the formal and informal curriculum influences, findings indicated that students often felt powerless and placed into

conflict between what they had learned in medical school, on how to be patient-centred, and what they were witnessing in practice (White *et al.*, 2009). This experience often conflicted with their own values and beliefs of how doctors should be. White *et al.* (2009) reported that some students retained their core values, whilst others changed their values to fit the culture of practice, even if this meant lowering them. This was reportedly an issue highlighted in an independent inquiry into the failures in patient care in the Mid-Staffordshire hospital (Francis Inquiry Report, 2012).

The transition to becoming a doctor and learning and developing a professional identity in the workplace is an emotional one. It can be both positive and negative; it has been suggested that it is not always taken into consideration in medical education, but is an important consideration to support trainees to become doctors (Helmich and Dornan, 2012). I would argue that it is also an important consideration in the remediation of underperforming doctors.

Socialisation does not necessarily involve changing an individual's character, attitudes or values but modifying them. If restricted selection and recruitment into medical school is appropriate and the people with values which are relatively aligned to those of medicine enter medical school, these students can then develop and modify their core beliefs and values. Hafferty and Franks (2001) state that the modification of core values and beliefs can partly be achieved through appropriate feedback and reflection. However, doctors need to have insight, and be willing to respond appropriately to the feedback offered.

There also needs to be the right cultural environment to facilitate this, along with exposure to, and engagement with, influential role models who espouse the values of the profession. Trainers highlighted in Phase Three data the importance of positive role models.

“Sometimes it’s a lack of knowledge and skills, but often it’s not those basics that are lacking it’s the finer attributes like time management or management of a team, which comes from experience cannot be taught easily and therefore courses are not going to and trainees are not always sure how to develop management skills or time management skill or management of a team...I think those skills are very difficult to teach in inverted commas, and often something that you pick up from your own experience and watching others” (ID16 TrER; female, Medicine)

If the medical values of the profession conflict with a trainee’s own values and beliefs, this can be problematic. I would argue that we are at a crossroads in medical education - where trainees’ expectations of the role of the doctor have changed. Trainees want more flexibility in training, with opportunities to work part-time, specialise later, and spend a period working overseas and engage in activities outside medicine which involve a better work-life balance.

7.2 Conflicting values

There were three main groups of trainees identified in Phase Three of this thesis, for whom individual and cultural values conflicted with professional values:

1. Trainees who worked less than full time - mostly comprising of females
2. Trainees who lacked insight, largely a factor of personality (i.e. lacked Conscientiousness and emotional intelligence)
3. Overseas graduate doctors

The following section examines in detail each of these three groups.

7.2.1 Trainees who worked less than full time - mostly comprising of females

There is a large body of nursing literature, which has identified and examined gender and commitment. Balancing work and childcare commitments was found to be more difficult for women (Cooper, 2006). However, there is very limited literature in this area on doctors. Therefore, I have drawn upon the nursing literature to demonstrate some of these findings and to help explain what is happening in part-time trainees who are having difficulty progressing in their training. There is a difference between personal and professional values.

Personal values in this context would be 'family comes first' whereas professional values are related to the patient comes first (McIntosh *et al.*, 2013), which is referred to in 'Good Medical Practice' (GMC, GMP, 2013):

“You must not deny treatment to patients because their medical condition may put you at risk. If a patient poses a risk to your health or safety, you should take all available steps to minimise the risk before providing treatment or making other suitable alternative arrangements for providing treatment” (GMC GMP, 2013, p.21).

Certain professional values within the medical culture may be viewed as gender stereotyping or old fashioned in relation to females working part-time. Women and men seem to be viewed as two different types of workers. Women are often viewed as encumbered and men as unencumbered (Wajcman, 1998) cited in Teesdale, 2013). These cultural values still exist within organisations.

“Maybe specialty should look at itself and allow for that in other words when you have a family, and that could be male or female, when they have a young family it is difficult. It is easier now than it used to be but it is difficult you are up at night you’re doing nights and weekends, which can be quite anti-social. The problem is why is it different for that group that have young family and those that haven’t got young family and they just have to fill the gaps and that’s where the imbalance, the problem occurs because they argue ‘why shouldn’t I have a social life as well, it may not be children but?’ (ID19 TrER; male, Medicine)

Many trainees talked about how difficult training was when they had a family and how working part-time had affected them progressing in their training, either

directly or indirectly. Mabhen *et al.* (2008) highlighted that full-time working is viewed as crucial, whereas part-time working is viewed as undesirable in nursing and is perceived as a sign of a lack of commitment. Trainees' comments in this study also indicated this was the case for doctors. However, commitment should be viewed as multi-layered, and divided (not necessarily equally) between personal, patient, colleagues and corporate (Robinson *et al.*, 2006). McIntosh *et al.* (2015) reported that there was often a conflict between the desire to adhere to organisational values, and personal attachments and loyalties. I would argue that this is also the case with trainee doctors in the medical profession. There can be a conflict between personal values and the desire to be a good mother and look after young children but also to become a doctor and take on the values of the medical profession and the professional identity of being a doctor and showing commitment. This creates a conflict if the medical culture's values are different from those of the individuals.

The trainees in my research who worked less than full-time commented that they worked part-time due to childcare commitments. However, they commented that it was often difficult to fit in work and training commitments because of working less than full-time. Echoed in previous research (Rich *et al.*, 2016). They felt that work expectations were often unrealistic as they were expected to see the same number of patients, and the non-clinical aspects of the job, such as paperwork and completing assessments, were often put aside. This finding echoed previous work carried out by Rich *et al.* (2016) who found that the lack of work-life balance had a greater effect on the learning

performance of female trainees who had children or wanted children and worked part time (Rich *et al.*, 2016).

“Well there’s a lot I can’t take home because much of it is confidential and patient sensitive data. So much of it just gets squeezed in lunch breaks, and the days when I’m not doing the nursery run, it’s interesting, when we say, balance” (ID10 TrEE; female, Medicine)

The perception from some trainers in Phase Three was that they worried that part-time workers often missed training opportunities. They thought that part-time trainees’ training was more interrupted, and that they missed out some aspects of their training compared to full-time trainees.

7.2.1.1 Changing priorities and values

Several female trainees commented on their priorities having changed after having children. They placed value on spending time with their children. However, trainees also talked about making sacrifices. There was a feeling that trainees had to make a choice between their career and their family. Trainees also commented that whilst they were committed to their work they were also committed to their family as well.

“I have a commitment to work but it’s not my whole life...” (ID18 TrEE; female, Medicine)

“You have to make sacrifices really” (ID24 TrEE; male, Medicine)

7.2.1.2 Perception of being less committed

Aarons and Savitsky (2006) have commented that commitment has been associated with prioritising the professional life over the personal life. The workplace context must also be taken into consideration when discussing commitment. In nursing, for example, McIntosh (2015) commented that operational needs need to be considered over individual needs. Davey *et al.* (2005) also commented that due to the 24/7 nature of healthcare, professional commitment is viewed as 'total', and to be placed above that of personal individual considerations. There was a sense from trainees that if you worked less than full-time you were less committed to your training and to being a doctor, as highlighted in the following two quotes, both by female trainees. Rich *et al.*, (2016) found similar findings in their study on perspectives of work-life balance of doctors in training. They found that negative attitudes from senior doctors related to pregnancy, maternity/paternity leave and those trainees who wanted to work less than full time. Trainees reported that they felt these negative attitudes could impact on their training and they felt that there was a perception that women were less likely to prioritise work over their families (Rich *et al.*, 2016).

“Like I remember a couple of weeks ago at work somebody had to leave for child care reasons, but there was an accident that had come into A&E, there were two other reg’s ... but the one that had to leave was the one that I think should have technically gone to the call. And that

person had asked somebody else to go for them and the other reg's were complaining that she wasn't committed and that, how dare she just go. It was four o'clock, which is the time you're supposed to leave...and I thought well actually nobody is going to pick the child up from the school gates...there was plenty of cover there...she shouldn't be feeling guilty for not staying. She should feel that actually that's fine" (ID29 TrEE; female, Medicine)

"I have a commitment to work but it's not my whole life and he [consultant] almost expects his registrars, part or full time, to completely forget their family.... I certainly cannot give him that so I certainly felt that he felt that I was inferior because I want to see my children. I know that's how he works, which is absolutely fine that's his life choice, but my life choice is that I don't want to do that.... There are no female consultants in the region that have children.... There are no men who work part time" (ID18 TrEE; female, Medicine)

There is a growing need for managers to be amenable to and introduce flexible ways of working. However, many managers believe that the responsibility lies with the individual to balance their work and personal responsibilities (Teesdale, 2013). Good quality care is viewed as being synonymous with commitment, which is demonstrated with working full-time and being flexible. If a trainee works long hours they can be viewed as committed (Teesdale, 2013). For a trainee with young children, showing commitment by working long hours would

be difficult, if not impossible, to demonstrate. Being measured against these qualities would therefore be viewed as not conforming to the expectations of professional values (McIntosh *et al.*, 2015). Given the large female workforce, this is concerning, particularly given the increase in the number of part-time doctors has increased from 28% (2015) to 38% (2016). Therefore, this issue needs to be recognised and changes in the medical culture need to be made.

This issue may also have implications for females entering the medical profession. Those who have, may find it difficult to merge their own individual values with those of the profession, and may decide to reconsider their chosen profession as the trainee's friend in the quote below did. Alternatively, they may continue in medicine but experience difficulties if not fully supported.

"[a friend of mine is] coming back from maternity leave next week actually and she's in [specialty] training. She's always been really, really driven and she's passed all her exams, now she's talking about dropping out of medicine ... and I'm like, wow, and she's like yes but I just want to have more of a life and I just want to be able to do more and actually medicine's not everything anymore" (ID16 TrEE; female, Medicine)

7.2.2 Personality

Whilst it should be recognised that personality encompasses more than how an individual communicates, or their lack of insight, this section refers to personality and the effects on communication, insight, and receiving and acting upon

feedback because these are the areas trainers and trainees referred to when discussing personality. Personality was seen to have a large influence on the way a trainee received and responded to feedback. Many trainers commented on how difficult it was to give challenging feedback on a trainee's performance if they lacked insight. Trainers reported that communication, and the way trainees interacted with patients and colleagues within the team, was linked to their personality. "... [poor] communication tends to be a big downfall that can be a pure personality issue..." (ID35 TrER; male, Surgery)

Research carried out by Molinuevo and Torrubia (2013) looked at whether personality was related to medical students' attitudes towards learning communication skills, using the 'Eysenck Personality Questionnaire' (EPQ-RS) scale and the aggression-hostility scale 'Zuckerman-Kuhlman Personality Questionnaire' (ZKPQ-50-CC). They found that students with high psychoticism (linked to lack of empathy, cruelty, impulsiveness, hostility, aggressiveness, emotional indifference, socialization deficit and psychopathy), coupled with aggression-hostility (linked to having a predisposition to express verbal aggression and showing rudeness, thoughtlessness, vengefulness, spitefulness, quick temper and impatient behaviour) showed worse attitudes to learning communication skills. However, these students perceived themselves as having good communication skills, thus demonstrating a lack of insight into their interpersonal skills. Molinuevo and Torrubia (2013) suggested that the concept of professionalism can be influenced by a student's personality. This lack of insight and willingness to learn communication skills could have implications for

trainees receiving challenging feedback and explain the lack of response towards remediation related to interpersonal skills.

It is likely that an individual's attitudes will influence their behaviour and may even affect patient safety, depending upon their attitude towards safety.

Trainees with certain personality traits may not be aware of their limitations and, in a stressful situation or emergency, this lack of awareness may affect teamwork or communication with the team. Attitudes can reflect personality type as well as life experience and culture. However, while attitudes that are culturally based may be more susceptible to change (NCCA, 2004), personality is believed to be more stable and resistant to change. Whilst personality cannot be changed, attitudes that a personality type leads to may be modified or changed, through remediation and coaching (NCCA, 2004).

7.2.3 International Medical Graduates (IMGs)

International Medical Graduates (IMGs) and Black and Minority Ethnic (BME) doctors have been found to experience additional difficulties affecting their learning and performance and thus impacting on progression through medical training (Woolf *et al.*, 2016). Doctors who completed their medical degree overseas often have different cultural values, experiences and beliefs to those who graduated in the UK (Slowther *et al.*, 2011; Chen *et al.*, 2011; Dahm, 2011; Slowther *et al.*, 2012; Rothwell *et al.*, 2013; Kehoe *et al.*, 2016). It is paramount that an IMG (from a different culture) is supported both to make a successful transition to the UK healthcare system and also during their training to learn

about the medical culture of the NHS and the values held by the medical profession. All too often overseas trainees face difficulties when they start their training but also throughout their medical career (NCAS, 2009; Kehoe *et al.*, 2016).

Historically, the UK has relied on overseas doctors to meet the shortfall in service provision. The same themes have been identified repeatedly in this thesis. All three Phases have highlighted that overseas (both IMG and EU) qualified doctors often have difficulty progressing through their training. This often manifested itself initially as communication problems (with patients, colleagues, supervisors, and with the team). Similar findings have also been found in other research (Slowther *et al.*, 2012; Rothwell *et al.*, 2013; Kehoe *et al.*, 2016; Woolf *et al.*, 2016).

Understanding of ethical and legal issues was often different in trainees who graduated overseas. This may reflect differences regarding patient communication and patient-centeredness. An example is when taking consent or discussing treatment plans with patients (Rothwell *et al.*, 2013), where the approach expected in the UK can be very different to that of other overseas systems (Rand, 2009).

Expectations and experiences of relationships with senior colleagues may also have been quite different. A study by Woolf *et al.* (2016) found that IMG and BME trainees' relationships with senior doctors were sometimes problematic. For example, seniors often did not have confidence in the ability of junior

doctors (Illing *et al.*, 2009). In many countries, the medical culture is more hierarchical than the NHS. Some trainees who have been used to a more hierarchical system and an established power relationship between seniors and junior doctors make this evident in their behaviour in the UK (*ibid*). Senior doctors are often more approachable in the UK, for example preferring trainees to use their first name. In some countries, the hierarchy is so strict it affects patient safety, for example it is not acceptable for a junior doctor to approach a senior doctor and ask for help on call (Rothwell *et al.*, 2013). This is highlighted in the quote below, which looked at the transition of overseas doctors into the UK Foundation Programme (Rothwell *et al.*, 2013).

“Back home...there is a kind of respect, like you are not allowed to speak to someone who is believed to be your senior easily... the culture does not allow you to speak to people who are older than you the way you want to” (35a, non-EU Foundation Doctor)

In the same study (*ibid*) educational supervisors reported that overseas trainees often came across as subservient or lacking in confidence. They also reported that trainees did not want to either seek or receive feedback. Overseas trainees also had difficulties with reflecting on their practice because this was not a skill that had been nurtured in their medical training or practice.

Many of the issues highlighted above were also reported in interviews with trainers in Phase Three of this thesis. These issues were often in relation to non-technical skills, where overseas trainees had difficulties. Trainers reported a

perceived impact of differences in culture and often compared the way things were done in the UK with way things were done overseas.

“Overseas doctors often had cultural differences. Issues about professionalism, behaviours in teams, decision-making, responsibilities. I think a lot of them have struggled with engaging with educational supervision activities, and you know...also receiving feedback, acting on feedback...a lot of the issues are down to non-technical skills really”
(ID17 TrER; female, Medicine UK)

Communication skills were an area highlighted by trainers in Phase Three, as poor communication presented problems in the clinical setting that overseas trainees needed to overcome. The difficulties related to language, accent and the way they interacted with other team members, such as nurses. Trainees did not always fully understand the role and knowledge of nurses in the UK and would sometimes disregard or fail to recognise this knowledge.

Trainers also observed that overseas trainees were more reticent to ask for help. Trainers reported that providing feedback was often made more challenging because trainees did not seem to understand the ethos behind trainers giving feedback. Trainers perceived that feedback was provided to help improve trainees' practice, but felt that it was sometimes seen as discriminatory rather than constructive. Collecting evidence for portfolios and ARCPs was often an unfamiliar concept and a new challenge for overseas doctors.

It is perturbing that so many of these issues were still happening in specialty training when they could have been identified earlier and support could have been put in place to prevent some of these issues. However, this was not surprising given that many of the issues were difficult to address. One is asking trainees to modify worldviews, values and beliefs, which they have been brought up with and are ingrained. However, given the right understanding and support during practice they can learn the professional values and socialise into the UK medical culture, as many do.

Hofstede's (2001) cultural dimensions may help to explain aspects of cultural diversity and the different values that are expressed by overseas trainees. They may also provide understanding on the extent that overseas qualified doctors are required to adapt and how they can be supported (Morrow *et al.*, 2013).

Hofstede (2001) identified four cultural dimensions, which were developed to enable the measurement and comparisons of aspects of culture. The four dimensions were:

- 1) Power distance (equality of power and how it is distributed within society)
- 2) Individualism (individual versus collective and how much that is encouraged within society)
- 3) Masculinity (how ambitious one is and the values of the society between assertive and competitive to caring)

4) Uncertainty avoidance (strong versus weak, how a society deals with change and flexibility).

Hofstede used the definition of 'culture' from Social Anthropology, which refers to the way people think, feel and act (Morrow *et al.*, 2013). Morrow *et al.* (2013) drew on findings from a larger study looking at the transition of overseas doctors into the UK healthcare system (Illing *et al.*, 2009) and examined the data using Hofstede's cultural dimensions to aid understanding of the transition of overseas doctors into the UK healthcare system. These changes were often related to the cultural *norms* and *values* from a trainee's own country being challenged.

Hofstede's cultural dimensions may add to our understanding of how to support trainees when experiencing cultural conflicts between their own cultural values and the values of the UK medical profession.

For example, in a masculine society, such as Japan and Germany, they are very competitive and individuals are assertive. In contrast, a more feminine society puts more value on the quality of life, and is gentler when, for example, giving feedback (Morrow *et al.*, 2013).

In a high-avoidance society the expectation is that teachers (i.e. trainers) have all the answers. Students' (i.e. trainees') expectations of themselves are that they will know all the answers (Morrow *et al.*, 2013). Interviews in Phase Three showed that this could potentially be unsettling for trainees who must show progression in their training rather than have all the answers. They may also feel disquiet if they do not pass their membership exams or ARCPs, or receive

challenging feedback. *Power distance* could impact on the way a trainee interacts with their supervisor and the way they learn, because they are much more hierarchical in their approach (especially if they come from a *high power distance* society). If a trainee is from a *high collectivism* culture, then they may, for example, find it more difficult to be assertive and ask questions on ward rounds.

More understanding of transitional issues experienced by overseas doctors is needed, and the introduction of induction programmes to help with acculturation transitions into the UK, the NHS and the training environment is also required. In addition, it has been suggested that on-going support in the form of mentoring and buddying is also required to help overcome some of these issues (Rothwell *et al.*, 2013; Kehoe *et al.*, 2016). It has also been recommended that efforts should be made to increase trainees' social support networks and build positive trainer and trainee relationships in a non-stigmatising way, so that overseas trainees are not seen as different (and must attend additional courses) to their UK peers (Woolf *et al.*, 2016). Some trainers in Phase Three commented that differences in overseas training needed to be recognised and addressed, especially regarding non-clinical skills, but also regarding the additional time required for trainers to understand and fully support overseas trainees.

"We've employed them we've said yep you are alright to come and work here, you're completely fine but how are we expecting them to just jump off at the same point as someone that's trained as a medical student in

the same city that they're starting to work in. It doesn't seem fair really...but at the same time it's not like we are given five additional hours that week to talk them through it. You are given the same amount of time to train this person as someone else who has trained [in the UK] and it's not the same" (ID38 TrER; male Medicine, UK)

7.2.4 Conflict with the values of the medical profession

As previously mentioned in this chapter, doctors must ensure that they are professional and adhere to the GMC's Good Medical Practice (GMC Good Medical Practice, 2013) (See appendix 7 for the GMP domains). Findings in Phase Three of this thesis highlighted that there was a conflict between trainees' own individual values and those of the medical profession. The following section highlights these conflicts specifically in relation to the GMC's Good Medical Practice (2013).

The GMP states that doctors must be committed, motivated, have insight and be able to reflect and show academic ability (Domain 1). Findings from this study have highlighted that personality can affect insight into one's own strengths and weaknesses, and can affect confidence, time management and engagement with training. Issues related to commitment and motivation to study medicine may lessen if one's priorities have changed, or trainers may perceive that commitment has diminished, as in the case with trainees working less than full-time. The training environment can also influence a trainee's motivation to study medicine. For example, the perceived inflexibility of training schemes,

perceptions of being over assessed and the balance between service delivery and training could all have an impact on the motivation to study medicine and on trainees' continued commitment to medicine.

Domain 1 states that doctors must be able to deal with uncertainty, be resilient and deal with difficult situations. Findings presented in this thesis show that personality traits can be a barrier to a trainee being resilient. The training environment can also influence the resilience of a doctor to deal with difficult situations. In addition, a trainee's personality and the attitude of a doctor can influence the way a trainee behaves in a stressful situation or in an emergency. Empathy, which can be related to resilience, is also mentioned as an important core value of a doctor (Domain 3). However, empathy can be eroded by burnout, which has been found to be linked to environmental factors (Dyrbye and Shanafelt, 2016).

Good Medical Practice states that trainees should have insight into their own health (Domain 2). However, findings from the trainers' perspective identified that trainees did not always have insight into their own health and did not seek help or support. Some trainers thought that this was related to the personality of the trainee. However, from the trainees' perception they were concerned that if they showed any sign of weakness and sought help that this would be viewed negatively. Trainees perceived the 'culture' was not to take time off, even when they needed it. In research by Dyrbye and Shanafelt (2016), professional values and the medical culture often prioritised work over personal needs, thus

discouraging doctors to take time off work when it was needed (Dyrbye and Shanafelt, 2016).

Related to this issue, was presenteeism, which was highlighted by several trainees. They maintained that presenteeism was related to the medical culture or trainees' perception of the importance of not taking time off work. This could also be related to personality and being overly committed and, therefore, not wanting to rely on colleagues to pick up their work. There was also a lack of clarity about whose responsibility it was to say whether the trainee should have time off work. Trainers often commented that they felt their hands were tied because it exceeded their responsibility as a trainer to suggest that a trainee needed to take time off, and that they could only suggest trainees consult with their GP. In contrast, trainees commented that they had felt let down by the system and that 'someone' should have noticed that they needed to take time off because they were unwell or grieving. Many of these issues can be related to the 'values' of the medical culture, conflicting with the hidden curriculum i.e. showing any difficulties could be viewed as a sign of weakness, which could be viewed negatively for trainees (Woolf *et al.*, 2016).

Domain 3 states that 'doctors must work as part of a team and provide continuity of care'. Individual factors have an impact on the expected values of working effectively as a team member and effective communication skills. Values and skills required for being an effective trainer and assessor can be influenced by barriers found within the training environment. For example, if a

trainer does not provide feedback early enough, the difficulties experienced by the trainee could escalate, which would not be beneficial for the trainee or their patients. Effective communication and teamwork stated in Domain 1 and 2 of the GMP are important elements of being a doctor. Findings in Phase Three highlighted that factors and barriers to meeting this domain could be personality type and country of graduation, which were both found to affect successful communication and teamwork. Furthermore, a lack of conscientiousness, not taking responsibility for one's own learning and a lack of insight when something went wrong were also identified in Phase Three as issues experienced by trainees who underperformed, and was related to both Domains 1 and 2.

Domain 4 states that a trainee must take responsibility for their own actions, medicine is a trusted profession and therefore the honesty and professional standards of the profession must be upheld. System factors impact on fulfilling this expected value, as changes in society and the requirement for more competency based assessments are driven in part by the requirement to prove to the public that doctors are both competent and trustworthy, particularly following the introduction of revalidation (Walshe and Offen, 2001). However, continual assessment can affect the training environment with the increased time required by trainers to feed back to trainees and the pressure on both the trainers and trainees to meet the requirements.

Individual factors can also affect a trainee taking responsibility for their own actions, as this depends on a trainee having insight into their own weaknesses,

as well as on the training culture. If trainees are working in a blame culture and where there is a lot of negative behaviour, trainees may be less likely to take responsibility for their actions.

Many of these core values expected of a doctor in Good Medical Practice may conflict with a trainee's own core values. They may manifest themselves as a risk factor for an adverse ARCP outcome (as highlighted in Phase Three) for trainees who experience conflict and are not in a supportive training environment, where appropriate feedback is provided, and the right type of support, depending upon the trainees' need is provided in a timely manner.

7.3 The Learning Environment

The learning context and environment influences the learners' development of appropriate values, behaviours and skills in medicine (Markakis *et al.*, 2000). Findings in Phase Three of this thesis highlighted from both the trainees' and trainers' perspective that ARCPs, the completion of e-portfolios and the associated assessments often took much time away from learning on the job and added stress to what was already an extremely stressful period. Trainees highlighted that they often felt there was more value in looking after their patients than completing assessments. Portfolios were often regarded as a tick-box exercise by both trainees and trainers. There was also some concern over whether the portfolios would identify doctors who were good at completing an e-

portfolio but not necessarily 'good' as a doctor. Mitchell *et al.* (2011) suggested that work place based assessments (WPBA), which are part of the evidence for ARCPs, are not a valid way of screening for junior doctors who are having difficulty. Viney and colleagues (Viney *et al.*, 2017) investigated trainee doctors' and trainers' perceptions of the validity of the ARCP. They found that there was a general dissatisfaction with the ARCP process, measuring clerical rather than clinical competencies from both trainees' and trainers' perspective. This perception of the ARCP process and the validity of ARCPs was also highlighted in interviews with both trainers and trainees in this thesis.

Foundation Programme trainees have viewed e-Portfolios negatively; it has been shown that they did not feel that the completion of portfolios should be connected to their educational outcomes (Vance *et al.*, 2013). In addition, the trainees reported that the ARCP encouraged portfolio completion but did not provide any meaningful feedback for trainees to be able to take their learning forward (*ibid*).

As previously mentioned, the learning environment is complex. Therefore, each of the three factors (individual, training environment and systems) identified in Phase Three of this thesis must be considered when planning education, learning and evaluating educational environments (Kaufman and Mann, 2010). However, I would also argue that the three factors identified in Phase Three need to be taken into consideration when thinking of the learning experience,

the well-being of trainees, and the role of the trainer in the potential remediation of trainees.

Learners' attitudes, beliefs and values influence their learning and what they do and how they do it. They affect the way they interact with patients, colleagues, supervisors, mentors and peers, but they can be modified through reflective observation, role modelling and feedback (Kaufman and Mann, 2010).

7.3.1 Feedback

Feedback is an important element in medical education to help trainees acquire the skills and knowledge required to progress (Bing-You *et al.*, 2017). Feedback has been considered by some as a 'cornerstone in effective clinical teaching' (Cantillon and Sargeant, 2008) and has been defined by Boud (2015) as:

"...a process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work" (Boud, 2015 p 4).

Feedback also helps to inform the trainee on the required professional values (Hafferty and Franks, 1994). The trainee interview data (Phase Three) suggested that in some cases it was not the trainees who lacked insight, suggesting at times it could be the way feedback was given to trainees that was the issue. It may be that, in some cases, trainees are perceived to have a lack of insight but, due to inadequate communication from the trainer, or avoidance

of providing challenging feedback, it may be an incorrect perception that it is the trainee who lacks insight. The acceptability of who is providing the feedback is an important element of feedback. If an individual does not value the source, and the person providing the feedback is not credible, this has an effect on how the feedback is received (Veloski *et al.*, 2006; Archer, 2010). There were instances when trainees did not receive feedback in a timely way, or received it much later, after the event. In these circumstances trainees found it difficult to benefit from the feedback. Sargant (2006) reported that appropriate feedback needed to be received in a timely manner to facilitate learning.

“I tried to reflect on the stuff that was written but it was all retrospective and I didn’t know in which circumstance did they feel that way...’unsatisfactory’ for things that I would expect a consultant to come and speak to me about, well before my forms...” (ID26 TrEE; female, Medicine)

7.3.2 Reflection is an important element

As stated above, feedback is an important element to inform the desired professional values. However, if a trainee either lacks insight or does not receive feedback early on, it may become difficult to modify their values, behaviours and attitudes later. For overseas graduate doctors, reflection may be a new skill not previously valued, and hence it would need to be acquired. This may also be the case for some UK doctors who have not previously learned or valued this skill. Having the skills and taking the time to reflect on one’s practice

is both important for a doctor's well-being as well as a strategy to enhance resilience (Epstein and Krasner, 2013; Zwack and Schweitzer, 2013).

7.3.3 Role models within medicine

Positive role modelling has been described as an important process for professional development and to inform career choices of those learning to be a doctor (Passi *et al.*, 2013). Learning about the role of a doctor takes place throughout training. However, what one person sees as a positive role model may be viewed by another as a negative role model. For example, if a trainee aspires to be like the stereotype for a specific specialty (aggressive or bullish) this may not be perceived as positive by all doctors and may perpetuate an unprofessional and negative working environment and culture.

7.4 The development of a model

Conflicting values and the associated issues discussed above are complex and inter-related between all three levels identified in Phase Three of this thesis. Looking at professional values as something more holistic, not just something that is to be ticked off by an individual, and understanding that societal values and trainees' values are changing, may help to understand some of the difficulties experienced by trainees. Also, there needs to be more flexibility within the training system to accommodate the changes in societal values. There needs to be a change in the workplace culture so that trainees feel that

they can take time off from their training if it is needed, without feeling stigmatised. The way in which values affect and influence individuals behaviours and attitudes (as described by Schwartz (2012) in the section above) is also worth considering as a person's values can affect their performance.

This chapter has identified and discussed the three main types of trainees that are most at risk of adverse ARCP outcomes and where individual and cultural values conflicted with the values of the profession. These were:

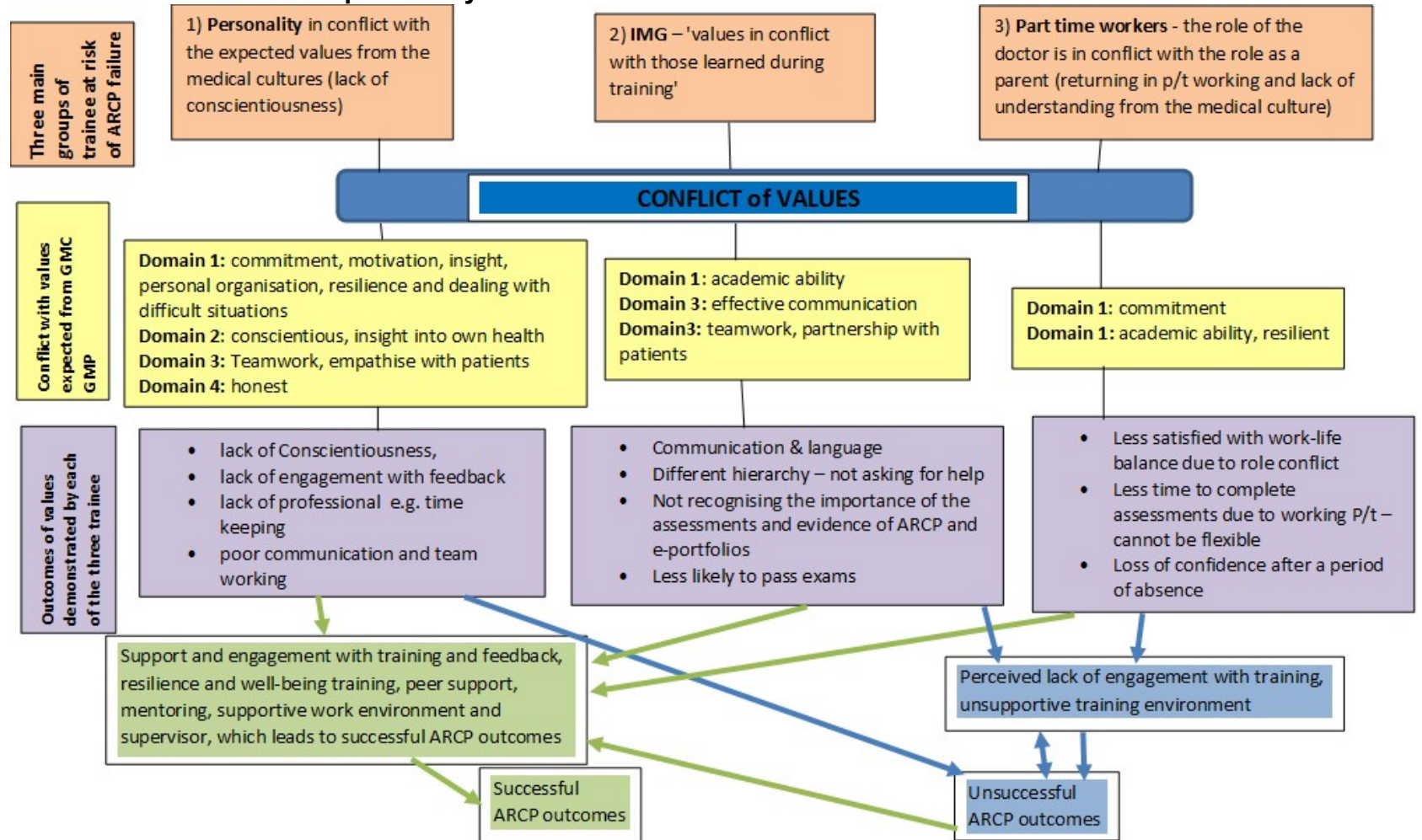
- 1) Trainees who work less than full time - mainly comprising females.
- 2) Trainees who lack insight, are not conscientious and who lack emotional intelligence and
- 3) Trainees who graduated overseas

However, it is also worth remembering that not all trainees will be able to successfully progress through training. Trainers need to have the appropriate training, feel supported and have the time to be able to support a trainee after receiving an ARCP outcome four (asked to leave their training post altogether). Trainers commented that providing challenging feedback was extremely difficult. However, the ARCP and e-portfolios were reported by trainers to provide useful evidence to help provide this feedback. If the feedback was given correctly, in a timely way, and in context (as much as possible) Timing and context has been found to influence the effectiveness of feedback (Sargent, 2006) and closing the loop in feedback (Boud and Molloy, 2013). In addition, if the portfolio and

assessments were used in the correct way, ARCPs should help to facilitate a trainee's progression in their training.

To this end, a model has been developed that aims to identify the trainee doctors who are most at risk of adverse ARCP outcomes, and suggest ways of supporting them to achieve a satisfactory ARCP. The model shows the three types of trainees who are experiencing the greatest conflict between their own individual values and those of the medical profession, and where this conflict in values occurs. It also shows the areas where trainees underperform when there is a conflict of values. For example, if there was a conflict in cultural values with an IMG trainee, then this may result in difficulties with communication, patient-centeredness, and teamwork and exam failure. If this trainee engaged with training and the support provided and was working in a supportive, positive training environment, then they would be more likely to receive a positive ARCP outcome. However, if they do not engage with training or the trainee was not in a supportive training environment, they would be more likely to receive an unsatisfactory ARCP outcome. If a trainee received an unsatisfactory ARCP outcome but subsequently engaged with the feedback and support, then they would be more likely to receive a satisfactory outcome. However, if they did not engage with the feedback and support then they would be more likely to receive another unsatisfactory ARCP outcome. The core values model 1 is presented below.

Model to show the three main groups of medical trainee at risk of ARCP failure and how their values conflict with the values espoused by GMC Good Medical Practice



7.5 Conclusion

In this chapter core individual values, professional values (GMC Good Medical Practice, 2013) and the socialisation of trainees into the medical culture have all been discussed. They have been explored in relation to data in Phase Three of this thesis to identify the conflict in values that can take place when a trainee is taking on the role and identity of a doctor.

In addition, a model has been presented to identify which doctors are most at risk of adverse ARCP outcomes, and suggest ways on how to support them to achieve a satisfactory ARCP. There have been three types of trainees identified from findings in Phase Three (and informed by Phase One and Phase Two) of this thesis where individual and cultural values conflicted with professional values. These were:

1. Trainees who work less than full-time - mostly comprising of females following childbirth.
2. Trainees who lack insight, are not conscientious and lack emotional intelligence
3. Trainee doctors who graduated overseas (IMG and EU)

Evidence from the interviews with trainees and trainers in Phase Three has been presented to evidence the model. Separately, there are also growing political and financial pressures to contend with related to societal changes, for example with the introduction of the junior doctors' contract (BMA press

release, September 2016), which impacts on the overall training environment and the morale of all junior doctors. There have also been changes in society's expectations of the medical profession (BMA, 2016), and with the introduction of revalidation in 2012 doctors now must prove they are competent to continue to practise. Identities of doctors are changing and, with this, the values, beliefs and attitudes of trainees and the medical culture; but are they changing at the same pace? The issues mentioned above can influence a trainee's well-being, which in turn can affect how valued they feel, how motivated they are to stay in medicine, whom they view as role models, and the feedback they receive. These issues can influence trainees' morale, professionalism and performance.

Chapter 8 Discussion and Conclusion

This chapter discusses results from Phase One (the retrospective observational data), Phase Two (the literature review) and Phase Three (the interviews with trainees and trainers). It synthesises all the data together to answer the research questions and a model is put forward to explain who is likely to fail ARCP, the risk factors associated with failure, and what can facilitate later success. I have called this the 'circuit model'. In addition, I have developed a screening tool to help with the early identification of those trainees who may be more at risk of future ARCP failure. This is in early development and will require further testing, but it has emerged from the findings, is evidence based and is put forward as a supportive tool. The chapter ends with recommendations and ideas for future research.

8.1 Overall research aim and objectives revisited

The overall aim of this research was:

To identify the factors that either facilitate or hinder medical specialty trainees in their Annual Review of Competence Progression (ARCP), with a focus on adverse ARCP outcomes.

Research Objectives:

The objectives to address the overall aim of the thesis were:

1. To identify which specialty trainees have difficulty progressing through their annual review and reported reasons for this (Phase One)

2. To examine the literature and identify the indicators that are associated with doctors who are experiencing difficulties with progressing during their postgraduate medical training (Phase Two)
3. To identify trainer and trainee perceptions of the barriers and enablers to progressing through specialty training (Phase Three)
4. To develop a model that will help identify which doctors are most at risk of adverse ARCP outcomes, in order to improve support for them (phase three and informed by phase one and two)

8.2 Summary of findings

This section summarises findings from all four phases of the research. Diagram 7 shows the three phases of data collection outlined in chapters 3, 4 and 6 and Phase Four, which was the development of the 'circuit' model (discussed and presented below). There was also an additional model ('values model) discussed in Chapter 7. This model explained why trainees failed ARCPs. In addition, a screening tool has been devised for the early identification of trainees at high risk of failure, and who require additional support in future (presented later in this chapter).



Diagram 7 illustrates the overall thesis, the three data collection phases and the identification of a 'circuit' model

Phase One of this thesis focused on a retrospective observation study of ARCP outcome data, with an emphasis on trainees who did not pass the ARCP and the reasons for receiving adverse outcomes and the reasons reported. Five percent (n=255) of trainees were found to have received an outcome three (extended training) or outcome four (asked to leave the training programme). Chi-square and logistic regression analyses identified that trainees who graduated overseas, older trainees and male trainees were more likely to receive an adverse ARCP outcome.

The main reason recorded for receiving an adverse outcome was '*Record keeping and [lack of] evidence*'. To help understand the reasons for this finding further research was conducted in Phase Two and Three of this thesis.

Phase Two of the thesis consisted of a literature review to identify the indicators associated with doctors who experienced difficulties with progressing with their postgraduate medical training. The initial search of Medline and Embase databases yielded 10875 articles. Once duplicate articles had been removed and article titles and abstracts had been reviewed, following the inclusion and exclusion criteria, twenty-two papers

remained; these were fully reviewed for this literature review. The included papers contained both qualitative and quantitative data following thematic analysis of the literature seven themes emerged: 1) international medical graduation and ethnicity, 2) age of the trainee, 3) gender, 4) personality traits, 5) financial issues, 6) the trainee's background, and 7) issues related to the organisation. These seven themes were identified as indicators associated with having difficulty progressing through postgraduate training.

Phase Three aimed to identify trainer and trainee perceptions of the barriers and facilitators to progressing through specialty training, and used a constructivist Grounded Theory approach to ensure that findings were grounded in the data. This Phase involved telephone interviews with trainees (n=21) who had received either targeted or extended training. They were asked about the factors that led to them receiving an adverse (targeted or extended training) ARCP outcome and what had helped and hindered them in their progression. In addition, trainers (n=57) were also interviewed to gain their perception on why trainees experienced difficulty whilst progressing through their training.

Three main categories (overarching themes which explained the sub-categories) were discovered (from Phase Three data) that affect a trainee's progression; these were called: 1) *Individual*, 2) *Training Environment*, and 3) *Society*. Each of these three categories comprised of several risk factors, which led to difficulties in a trainee's progression during training.

Overall Core Category: Core Values

The main overall core category, which emerged and explained why trainees experienced problems, was '*Core Values*' (discussed in Chapter 7). Findings from Phase Three identified three main groups of trainees where individual and cultural values conflicted with professional values if unsupported in the training environment. They were:

1. Trainees who lacked insight, largely a factor of personality (i.e. the trainees lacked conscientiousness and lacked emotional intelligence)
2. Trainees who had graduated overseas
3. Trainees who worked less than full-time (mainly females)

Values are the beliefs, principles and standards by which we live our lives. These values influence the way we conduct ourselves, our worldview, and our attitudes (Heggertveit-Aoudia, 2012). Most of the difficulties in progression, identified in Phase Three, were explained by differences in values. Values are driven by many issues: personality, family values and the values expressed by one's national or workplace culture. Individual values, professional values (GMC Good Medical Practice, 2013) and the socialisation of trainees into the medical culture have been explored in relation to the data in Phase Three. This analysis identified a conflict in values that was evident when a trainee was taking on the role and identity of a doctor in the NHS. A model was put forward to help support trainees ('values model', Chapter 7), to help identify, which doctors are most at risk of adverse ARCP outcomes, and why.

8.3 Triangulation between all three phases of data collection

Findings from all three phases of the research triangulated together highlighting the main risk factors involved in ARCP failure. These were: 1) doctors who graduated from overseas, 2) age, 3) gender, 4) lack of engagement with training, and 5) organisation and the training context (for example, work intensity, hours of work, completing training requirements and service delivery). The synthesis of findings are discussed below and presented in the context of others research, thus providing a level of external validity. There is a degree of overlap between the risk factors, for example age and gender but they are presented as separate risk factors below.

8.3.1 Risk factor 1: Overseas graduate doctor

A strong and consistent theme that ran throughout all three phases of this thesis was the difficulties that arose when trainees had graduated from overseas (for both IMG and EU trainees). In Phase One, more overseas graduates (IMGs and EU) were found to have received extended training, or had to leave the training programme altogether, compared with UK graduates. Conversely, trainers did not distinguish between IMG and EU trainees in Phase Three of the thesis. However, it is worth noting that there could be a distinction between EU and IMG doctors. As IMGs from some countries, for example India are taught in English, and therefore their English language is better than perhaps an EU doctors English language because they are not taught in English. Recently there has been an increase in the number of EU trained doctors under GMC investigation (General Medical Council, 2016). These findings are in line with previous research in this area

where IMGs were found to be more likely to obtain an unsatisfactory ARCP outcome compared to their UK counterparts (Tiffin *et al.*, 2014). It could also be a possibility that this could be linked to subtle unconscious biases from the trainer (Wolf *et al.*, 2016). There were concerns from trainers in Phase Three interviews that overseas trainees struggle and are not able to adapt their cultural background. These perceptions may influence trainers in their feedback and discriminate (whether consciously or unconsciously) against overseas trainees in assessments and feedback. Further work needs to be carried out in this area to explore this issue further. In Phase Two, much of the literature reviewed identified overseas qualified doctors as an indicator for having difficulties during postgraduate training. The increased risks included: lower exam results (Wakeford, 2012; MacLellan, 2010; Papadakis *et al.*, 2008; Esmail and Roberts 2013; Mahajan, 2007), poor language and poor communication skills, a lack of integration and acculturation into the UK life style, and a lack of fit with UK professionalism (Gozu *et al.*, 2009; Mahajan, 2007; Rothwell *et al.*, 2013; Kehoe *et al.*, 2016; Kehoe, 2017). In Phase Three, both trainers and trainees highlighted the additional issues that overseas trainees faced compared to UK graduates. Similar issues were highlighted in Phase Two. These included problems with communication and language, difficulties related to receiving feedback (Zulla *et al.*, 2010; Broquet and Punwan, 2012), exam failure and the completion of e-portfolios (Wakeford, 2012). Often problems focused on a lack of experience with portfolios, not recognising their significance, and not recognising or demonstrating professional standards (for example, patient centeredness) (Rothwell *et al.*, 2013; Kehoe *et al.*, 2016; Kehoe, 2017). Whilst ethnicity was

not looked at specifically in this research other research has highlighted that BME UK graduates experience similar difficulties in their training to IMGs (Woolf *et al.*, 2016).

8.3.2 Risk factor 2: Age

Another strong risk factor, which emerged from all three phases of this research was age and (related to age) life stage, for example if the trainee had a dependent at home. Overseas doctors tend to be older compared to UK graduates when they start training. Phase One data showed that a large proportion of overseas doctors receiving adverse outcomes (extended training or having to leave the training programme) were 'older' in age. This is also supported in other research findings (Pyne and Ben-Shlomo, 2015; NCAS, 2009). Many overseas qualified doctors arrive in the UK training system having worked in their country of origin first, and then have to adapt to a new healthcare system. Links between age, work-life balance, and adjustment to UK professionalism were also identified in the literature review in Phase Two (Wakeford, 2012; Esmail and Roberts, 2013). Trainers and trainees did not mention age specifically, in Phase Three, but they did mention issues which were more likely to be related to older trainees, such as: managing childcare, working part-time, and being away from children and family, all of which impact on the work-life balance of a trainee. These findings were supported by Rich *et al.* (2016).

8.3.3 Risk factor 3: Gender

Gender was a theme which was also repeated across all three phases. In Phase One, males were found to be more likely to have difficulties progressing through their training. In Phase Two there were mixed findings about whether being male or female was an indicator for having difficulties during postgraduate training. However, many of the studies in the literature reported that female trainees were less satisfied with their work-life balance than their male counterparts. This was also supported by more recent literature (Rich *et al.*, 2016). Coping strategies were found to be different in males and females. Males were less likely to seek support and used disengagement strategies to cope with stresses, whereas females were more likely to seek social support, which helped with anxiety and stress (Bee-Horng *et al.*, 2010; Hyman, 2011). This finding could have implications for remediation and how best to target support strategies. In Phase Three, working patterns of trainees were found to be a risk factor to progression. These findings were also echoed by previous research where females were less likely to be satisfied with their work-life balance (Yao and Wright, 2001; West *et al.*; 2006; Mahajan, 2007). Working patterns of female trainees related particularly to part-time working, or returning to work following maternity leave, and a change in priorities following a life event such as having children. Part-time working following childbirth was found to hinder progression and thus be a risk factor for later ARCP failure, if not supported in the right way. Both trainees and trainers reported on how these issues impacted on progression, in particular with regard to, engagement with training, assessments and work-life balance. It was not clear from the data in

Phase Three whether trainers viewed LTFT trainees as less committed and whether working LTFT was detrimental to their training. However, there were some comments from trainers related to trainees working LTFT and therefore missing training opportunities. Trainees commented that there was definitely a perception that they were less committed if they worked LTFT. Trainers could unconsciously bias against trainees who work LTFT, which could effect their training outcomes. A lack of work-life balance was also found to negatively impact on trainees learning performance and wellbeing in previous research (Rich *et al.*, 2016). Having an understanding and supportive training environment (including a good educational supervisor) was reported to help trainees. In addition, social support (both in and outside work) and peer support were important aspects for trainees to help overcome difficulties in their training. However, as previous research has highlighted (Woolf *et al.*, 2016; Rich *et al.*, 2016) social support was more difficult for IMGs who were often isolated from their family and friends. Moreover, IMGs perceived a lack of trust and bias from their trainers (Woolf *et al.*, 2016). This perception could impact on trainees feeling unsupported, not seeking help when needed and not responding to feedback from trainers. In addition, part-time workers may feel that they are perceived as having less commitment, as highlighted in Chapter 7 (Core values chapter and core values model 1). Therefore they may experience stress related to trying to progress at work and have a good work-life balance.

8.3.4 Risk Factor 4: Lack of Engagement with Training

Engagement with training was also identified as a strong theme that was repeated across all three phases of data collection. In Phase One '*record keeping and evidence*' or a combination of '*record keeping and evidence*' with '*lack of engagement with supervisor*', '*record keeping and evidence*', with '*single exam failure*' or with '*continual exam failure*' were reported reasons found to explain why trainees received extended training or had to leave the training programme altogether. In Phases Two and Three a '*lack of engagement with training*' was found to be linked to the personality of the trainee, being an overseas graduate, or/and the training environment. For example, receiving feedback and not acting upon it, or academic indicators such as, failing exams or completion of assessments were all found to be more common among overseas doctors and BME doctors. These findings were also supported in previous research (Tamblyn *et al.*, 1998; Papadakis *et al.*, 2008; Wakeford, 2012; Woolf *et al.*, 2011). Interviews in Phase Three offered more insight into what factors impacted on trainees receiving the adverse ARCP outcomes. The difficulties experienced that led to trainees receiving adverse outcomes were complex and often multi-faceted. There were often differences in perceptions of issues between trainees and trainers as to why they appeared to lack engagement with training, and had not sought help earlier. Or why they had not responded to or understood the feedback provided. This can be explained, in part, by differences in values between the trainee and the medical culture (discussed in detail in Chapter 7). For example, differences in the cultural values of overseas doctors or differences in values of part-time workers and the role of the doctor conflicted

with the role as a parent or the role of an overseas doctor having trained in a different system with different medical values as instilled from prior training.

8.3.5 Risk Factor 5: Organisation and Training Context

The organisation, or training context, in which the trainees worked, impacted on trainee progression. The training context could either facilitate or hinder trainee progression throughout their training. Findings from Phases Two and Three identified both facilitators and barriers within the training environment. Barriers identified were issues related to unrealistic workload and intensity, which impacted negatively on training and work-life balance. In addition, a 'failure to fail' culture within the training environment was also identified as a hindrance to progression. These findings support previous research in this area (Dudeck *et al.*, 2005; Cleland *et al.*, 2008). Trainees continued to progress through their training rather than being told that they were underperforming by the trainer. 'Failure to fail' a trainee, or highlight to a trainee that they were underperforming was due to several factors, which influenced trainers. One of the main factors reported was a lack of time to deal with the additional workload that a doctor who was underperforming was perceived to cause. Facilitators to successful progression in training were identified in the data in Phase Three. These were: having a supportive educational supervisor with whom the trainee had a good relationship, and having a supportive training environment where trainees did not experience negative behaviours from others, or where they could fulfil their training objectives.

Receiving an ARCP three outcome (extended training) was felt by trainees to be stigmatising for them. However, receiving an ARCP outcome three may not have been solely the fault of the trainee. There may have been contextual and environmental issues, or the trainer may have been absent. However, trainees could still receive an adverse ARCP outcome despite this. The changing demographic in society's population sees an aging population with more co-morbidity, which puts additional pressure on the medical workforce and the NHS (BMA, 2016). At the same time, the European Working Time Directive (EWTd) has resulted in greater work intensity (Morrow *et al.*, 2014). Following the introduction of ARCPs and competency based education, assessments have increased (Crossly *et al.*, 2010) and, with the introduction of Modernising Medical Careers (MMC) and the run through programme, the time in training has decreased. There was a clear 'failure to fail' culture reported in the interviews with trainees and trainers (Phase Three), explained as due to lack of time to dedicate to trainees who were experiencing difficulties. This has also been reported in previous research (Dudek *et al.*, 2005; Cleland, 2008).

However, as Niall Dickson (Previous CEO of GMC) was cited as saying when talking about educational and clinical supervisors: *"They are shaping the doctors of the future and we need to ensure they have the time, support and training they need to undertake this critical work"* (Niall Dickson, 2012).

8.4 Assessment and Feedback

Assessments can be formative in nature (guides learning and development and helps to nurture reflection) or summative in nature (makes a judgement on the overall competence, fitness to practice or progression to the next level of training) and therefore can act as a barrier to further progression (Epstein, 2007). Summative assessments may not provide the person being assessed with enough feedback to change and develop in their learning but individuals will learn what they think they will be tested on and so in this way summative assessments may have an influence on an individuals learning (ibid). Van der Vleuten (1996) suggests five criteria for assessing the usefulness of an assessment method; reliability i.e. how accurate and reproducible a measurement is the assessment?); the validity i.e. whether the assessment measures what it is measuring; the impact on future learning and practice; the acceptability to learners and faculty; and finally the costs to individual trainees, the institution and society (Van der Vleuten, 1996 cited from: Epstein, 2007). Van der Vleuten's five criteria are worth considering when viewing the ARCP as an assessment to measure trainees progressing to the next level of their training.

There has been limited research carried out on ARCPs (Archer *et al.*, 2010 and Viney *et al.*, 2017) this is surprising considering that there is so much importance and emphasis placed upon the ARCP outcomes. Viney *et al.* (2017) have recently carried out work looking at the validity of ARCPs and asked trainee and trainer perceptions of ARCPs. They found that they are often viewed as a tick box exercise, measuring clerical rather than clinical

competence, showing a lack of evidence of validity as a way of showing progression in training (Viney *et al.*, 2017). More research has been carried out on the assessments included in an ARCP, such as Workplace Based Assessments (WBPA). However, there is mixed evidence as to whether they work as an educational initiative (Archer *et al.*, 2010). Workplace Based Assessments assess doctors in the context of their workplace (*ibid*) and are formative in nature. WBPA depend upon systematic feedback from a credible source (Archer, 2010 and Archer *et al.*, 2010). However, as we have seen in findings in Phase Three and in other research (Viney *et al.*, 2017 and BMA, 2016) there were several issues with the provision of feedback in ARCPs.

The timing of feedback and the context in which it was given was dependent upon specialty. For example, in specialties such as surgery and anaesthetics (where trainees were closely supervised) trainers could offer 'real time' feedback compared with some specialties where trainees were given feedback some time after the learning event and out of context of the event. Highlighting a lack of consistency across specialties (Viney *et al.*, 2017). In addition, feedback was seen by trainers as difficult to provide, if it was challenging, or if a trainer did not have much daily contact with the trainee. This lack of contact with the trainer who is providing feedback to a trainee has implications for the credibility of the feedback, and whether the feedback will be taken on board and acted upon.

An additional point worth noting related to feedback is that some trainees commented on the fact that trainers provided negative feedback but rarely did they receive positive feedback, which they felt would be beneficial to their learning. This is something worth considering in training of trainers; to

highlight and the importance of positive reinforcement is just as important as negative feedback for development and progression.

As previously mentioned there have been some questions raised around the validity of ARCPs (Viney *et al.*, 2017) and e-portfolios (Vance *et al.*, 2013). They have been seen as a tick box exercise that measures administrative competence rather than clinical competence. These points also reflected findings in this thesis where both trainees and trainers reported that they viewed the portfolio as a tick box exercise. However, trainers reported that the current system of the portfolios were better than the previous system. In addition, findings in Phase Three highlighted that both trainees and trainers were found to be dissatisfied with the assessment format and learning outcomes of the e-portfolio. They were too rigid without enough room to provide qualitative feedback to trainees. These findings reflect previous research on portfolios (Mitchell *et al.*, 2011) and assessments (Holmboe *et al.*, 2004; Crossley *et al.*, 2010; Vance *et al.*, 2013; Viney *et al.*, 2017). There was also a feeling from trainees and trainers that completing assessments and portfolios took time away from practical learning. There was also some question as to whether ARCPs picked up trainees who were having difficulties progressing through their training. There were several comments from trainers of incidents where they knew of trainees who had passed their ARCP, but not not been good practically in a day to day clinical environment. This finding was also highlighted as an issue by Viney *et al.*, (2017). These findings bring into question whether ARCPs measure what they set out to measure. ARCPs were often viewed as unnecessarily stressful and intimidating for the trainee, adding additional pressure to an already stressful

period in a trainees training. This was also echoed in the research by Viney *et al.*, 2017, where trainees reported on the stress that they experienced going to ARCP panels.

Trainers highlighted that some overseas trainees may not understand the importance attached to the completion of the e-portfolio as it may be a new way of training and assessment that they had not experienced in their own country. Reflective practice (which is part of the portfolio) is also a new concept to many overseas doctors who may not have come across it in their country of graduation. These concerns can be overcome if overseas trainees are in a supportive training environment with a good educational supervisor and support. In addition, trainees commented on the difficulty and feasibility of completing assessments in their busy working environment. This was highlighted particularly by trainees who worked LTFT. Trainees commented that often rota shifts, or busy working environments, took them away from training and getting assessments signed off. Therefore, ARCPs may not be acceptable to the learners because of the difficulties described above. If we return to Van der Vleuten's (1996) five criteria for assessing the usefulness of an assessment method and look at the evidence in this thesis and elsewhere in the literature (Viney *et al.*, 2017, Archer *et al.*, 2010), it is clear that there needs to be additional research carried out on the validity and useability of ARCPs. The current ARCP system is being reviewed, which is a positive move.

8.5 Review of the ARCP process

Health Education England (HEE) is the national body that oversee the training and development of doctors, as well as other healthcare workers, and is currently reviewing the ARCP system. Prof Wendy Reid, the Director of HEE, stated in BMJ Careers that:

“For many the process has become a stressful “rite of passage.” We believe that the tick box culture of the ARCP does not support the professionalism that doctors aspire to, and we are launching a review of the process” (Wendy Reid, 2016).

HEE have recognised that trainees are feeling undervalued, in part because of the dispute over the junior doctors’ contract (Moberly and Bagenal, 2016) but also due to working conditions, such as unsociable hours and rota patterns. HEE are also looking at reducing the number of rotations within training to take into consideration those trainees who have caring responsibilities, thus supporting one of the groups identified in this thesis. In addition, HEE have recognised that trainees have changed and want more flexibility in their training programme (Reid, 2016). These changes are still being reviewed, however if greater flexibility during training is supported this will go some way to relieving some of the pressure experienced during training. Some of these changes raised by HEE have been identified in data in this thesis, such as the conflict experienced by trainees in the differences of values related to working patterns, especially for those with dependents at home. In addition, issues raised by trainees and trainers related to the training environment such as work intensity, feeling undervalued and the

inflexibility of training were also identified as a risk factor in Phase Three data in this thesis.

8.4 Well-being of trainees in the context of the training environment

As we have seen, being a specialty trainee is a stressful period in a trainee's life. Having to juggle the demands of a busy demanding role whilst maintaining their training commitments can cause additional stress, and may lead to burnout. Trying to maintain some work-life balance is challenging but is extremely important and should not be dismissed. Therefore, the well-being of a trainee (whether underperforming or not) is an important area to consider when looking at the progression of trainees in their specialty training. This research did not look specifically at burnout and resilience, but many of the issues raised in Phase Three related to the training environment have been identified in previous research (Dyrbye and Shanafelt, 2016) and have been linked to an increased likelihood of burnout. Dyrbye and Shanafelt, (2016) reported that training environmental factors were the main drivers for burnout experienced by medical students and residents. These findings triangulated with the findings identified in this thesis within the category '*training environment*' from Phase Three, and organisational factors from Phase Two, such as work intensity, busy working environment, and long, unsociable hours and balancing training requirements with service delivery. Often the onus is placed on the trainee to change, but these findings show that it is not just the individual that needs to change and adapt, but the environment and context that the trainee works within also needs to change. This was also highlighted by Balme *et al.*, (2015). As identified in Chapter 7, the core values of trainees may conflict with the values of the

medical culture. The three types of trainees identified as most at risk were: 1) trainees working less than full-time with dependents 2) overseas graduate doctors and 3) Personality issues: in particular those who had a lack of insight, had difficulties with communication and teamwork and lacked resilience. Personality has generally been considered by psychologists to reflect individual differences which are relatively stable over time (Caspi, *et al.*, 2005) and represents perhaps the greatest challenge, especially if trainees lack insight. Although personality traits do demonstrate considerable consistency (Caspi, *et al.*, 2005), a growing body of evidence suggests that personality does change over the lifespan (Roberts *et al.*, 2006; Specht, *et al.*, 2011) and some changes are associated with certain life events (Specht, *et al.*, 2011) and with therapeutic interventions (Roberts, *et al.*, 2017). On the other hand, overseas qualified doctors are probably the most adaptable to change, given support and help to adapt to the medical culture of the NHS. Trainees working less than full-time may only require additional support for a period of time and require the work culture to be more understanding and enable a more favourable work-life balance.

Findings in Phase Three identified that trainees reported they did not seek help because they were worried that this would be interpreted as a sign of weakness or they would be branded weak. This echoes findings identified by Drybye and Shanafelt (2016) who reported that trainees who experience burnout did not want to seek help as they did not want to be perceived as showing weakness. As identified in Phase Three, the perceived culture within medicine of the lack of work-life balance, unsociable and often long hours, and the perception from

trainees that they are unable to take time off work, even when needed, could lead to trainees feeling burnt out.

8.6 Circuit Model: to explain the barriers and enablers to ARCP progression

The following section provides a summary of the findings from all three phases. A 'circuit' model (see below) is put forward to illustrate the risks and enablers (facilitators) in each of the three areas: individual, training environment and systems identified, which were found to have an impact on training and affect the performance of trainees. The facilitators which were identified in Phase Two and Phase Three of this thesis have also been incorporated into the circuit model. These enablers were identified through the literature and from the interviews, to help support doctors who were having difficulty progressing through their training, and mitigate against some of these difficulties.

The circuit model highlights risk factors for trainees within the three areas highlighted in Phase Three of this thesis (individual, training environment, and society).

The circuit model is used to illustrate the different forces that come into play to influence ARCP outcomes. Categories can work individually or with others, but each have different associated risks and enablers that contribute to either failure or success at ARCP.

For example, the category, *individual*, highlights the potential risks that a trainee may have during training (personality, overseas graduate, working patterns) these risks introduce resistance into a theoretical electrical circuit, and prohibit or reduce the power of the electrical current from moving along

the circuit towards (hinder trainee progression) towards the 'successful ARCP outcome' dial.

The 'resistance' in the circuit can be overcome with enablers. Enablers act on a switch and close the circuit, permitting the current to flow (trainee makes progress). The enablers counteract and work against the resisters. Enablers include: early feedback on performance, a good and supportive training environment and positive role models.

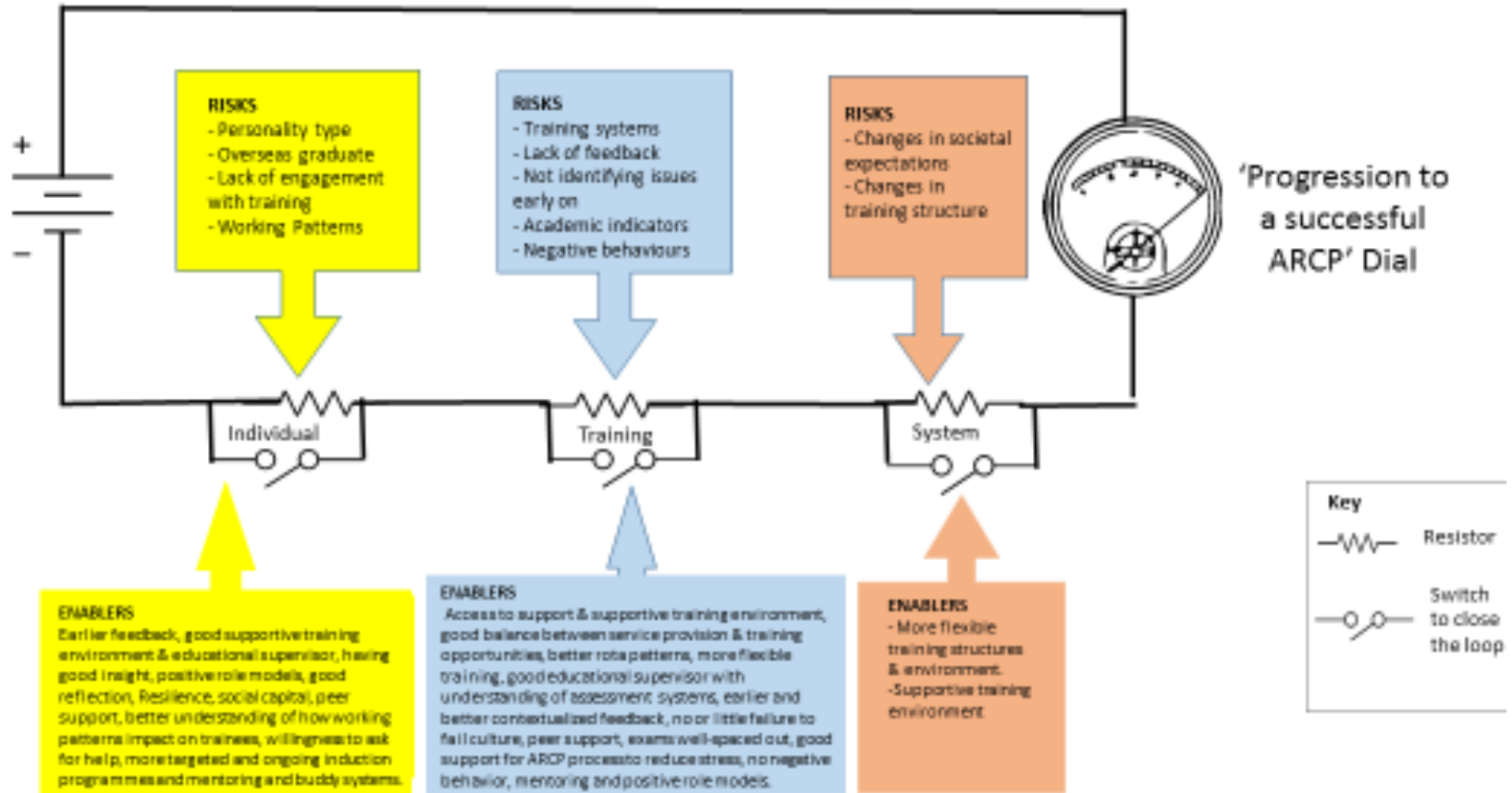
Resistance to ARCP progression can come from one or more categories (*Individual, Training or System*). Resistance from the *training environment* (lack of feedback, feedback provided too late, negative behaviours from others) can be counteracted by having enablers such as access to support, early feedback, and absence of negative behaviours. Again these enablers close the circuit and enable the flow of progress (current) to reach the 'good doctor dial' (successful ARCP). Similarly the last category *System*, provides resistance by having a high work intensity and greater patient expectations. Again this can be counteracted (close circuit) by enablers such as more flexibility in training and a more supportive training environment (permitting current to flow and trainee to make progress).

This model helps to illustrate a training system and the different positive and negative inputs and how the absence of the positive (enablers) leaves the negative to halt progress.

Often difficulties experienced by trainees are viewed as one of these factors: either the fault of the individual, the fault of the training environment or the fault of the system. However, by looking at all three factors together this will

enable a better understanding of what the issues are and help target the right support and remediation. Research (Cleland *et al.*, 2013) has found remediation was targeted at passing exams, or assessments, thus providing little or no knowledge about the additional support that may be required for underperforming trainees. This highlights that there needs to be more than one approach to remediation to meet the needs of the individual trainees and the training environment within which they work.

The electric circuit model illustrates the risks and enablers (facilitators) in each of the three areas: individual, training environment and systems identified in Phase Three to support progression to a successful ARCP.



8.7 What can facilitate successful training?

Having some resilience strategies is important for a doctor's well-being and may, in part, help (trainees and trainers) to cope with working in a difficult, stressful environment. Trainees in Phase Three commented on the training pressures (balancing training alongside membership exams and assessments), the high expectations they place upon themselves and the competitive culture of medicine impacting upon their resilience. Trainees are academically high achievers and not used to failing. If a trainee fails their membership exam or receives an ARCP adverse outcome this can have a negative effect on their self-esteem and ability to be resilient, as reported by trainees in Phase Three. However, trainees reported that having some resilience strategies had helped them be able to recognise that an adverse ARCP outcome was not such a disgrace, and that there were benefits from having extended training. For example, some trainees who had received extended training commented that they felt that their experience would benefit them in the future. In particular they stated that the extra experience would provide more understanding when they were educational supervisors themselves with their future trainees if they had a similar experience. In addition, the busy, high pressure, stressful training environment that trainees work in and the high work intensity can all impact on a trainee's resilience. Therefore, having some resilience strategies (e.g. mindfulness strategies) and coping mechanisms may help trainees to be more resilient in their training.

Trainees are working in an ever-changing healthcare system, which is also undergoing environmental and cultural changes (Dyrbye and Shanafelt, 2016). Findings from Phase Three of this thesis have highlighted that trainees are always experiencing different shift patterns, often moving and rotating into different teams and hospitals, and often face long work commutes. In addition, training and service provision compete for a trainee's time, as identified in Phase Three data. This can all impact on the resilience of a trainee. In medical education, trainees are often left to enhance their own self-regulation, utilising coping mechanisms they learnt prior to entering medicine, such as exercise and meditation (Epstein and Krasner, 2013).

Epstein and Krasner (2013) have developed strategies for the promotion and maintenance of resilience: *self-awareness and self-monitoring*, which entails recognising the signs of being stressed. This can be done through mindfulness exercises or reflecting on one's own practice. *Self-regulation and resilience* were also seen as an important strategy, for example having the ability to recognise one's own limitations and weaknesses. In addition, being able to set boundaries around working hours, sleep, spending time with family and friends was also an important element of self-regulation and resilience (Epstein and Krasner, 2013).

The promotion of resilience training, such as mindfulness, and cognitive behavioural techniques using muscle relaxation techniques have been found to have positive effects on physician stress and well-being (Dyrbye and Shanafelt, 2016). Resilience strategies could be introduced for all trainees (and trainers) to help facilitate the successful progression of specialty training

and help to mitigate against some of the stresses experienced by trainees (and trainers) related to both individual and training environment contexts. The importance of reflection, good educational supervision, peer support groups, having social capital, having positive role models to enhance the importance of being a doctor were all reported as facilitators to the successful progression of trainees in Phase Three data. In addition, having a supportive environment, where feedback is provided to help with motivation was also seen as an important facilitator to trainees' successful progression. Findings from Phase Three data align with aspects of resilience strategies discussed in previous research (Jensen *et al.*, 2008).

With changes to the NHS, trainees no longer stay in the same placement very long, they are no longer part of a 'firm' where previously they would have worked with the same team and in the same ward, and therefore trainees would have been well known and supported. Trainees now move around and often work with several different teams, thus eroding that continuity of care and the ability to build up supportive relationships, which were identified as an important facilitator for trainees in interview data.

8.8 Development of a screening tool to support the identification of speciality trainees who might be at higher risk of receiving adverse ARCP outcomes

Findings from this thesis have identified the evidence that contributes to trainees facing adverse ARCP outcomes. To support early identification of those trainees at risk I have developed a screening tool for use by Trusts. The aim is to identify those most at risk and provide support, thus reducing the potential risk of receiving an adverse outcome by providing targeted support and raising awareness of the particular needs in advance.

This screening tool has been shared with four Trusts, and has been found to have face validity. Early feedback indicates that it would be helpful. However, before used it would need to be tested thoroughly to ensure that it was used in a supportive way and helpful for trainees and trainers. There is a risk that by using this tool, trainees will be viewed as ‘the problem’ rather than the environment and the training not being supportive.

Screening Tool to support the identification of speciality trainees who might be at higher risk of receiving adverse ARCP outcomes. Its aim is to recognise trainees with potential problems and to provide support. It is not a tool to label or discriminate.

Category	Risk Factor	Yes	No	Trainer role Mitigate risk by:	Training environment Mitigate risk by:
Personality issues	Low conscientiousness (not punctual, not committed)			Trainees need very clear and specific written and oral guidance on expectations. Provide detailed feedback on what needs to change.	Place with trainer who has regular contact and in training environment that is highly structured
	High neuroticism (anxious, worrier, low resilience)				
	Poor communicator				
	Lacks engagement				
	Does not respond to feedback				
Overseas qualified	*IMG or EU			These trainees need to understand: the NHS system, importance of the portfolio and nature of feedback.	Place with trainer who understands the challenges overseas qualified trainees face and has regular contact. Provide a 'buddy' who is a peer
	Male				
	Older age for stage				
	Lacks engagement				
	Does not respond to feedback				
Work-life balance	Works less than full-time			The caring responsibilities need to be acknowledged (not hidden). And requirements for flexibility need to be explicit and negotiated with trainee at start of placement.	Place with trainer who understands the pressures of having caring responsibilities and in supportive training environment
	Female				
	Caring responsibilities				
	Lacks engagement				
	Does not respond to feedback				

The evidence for this screening tool is based on 1) literature review, 2) analysis of ARCP data over a five year period and 3) qualitative interviews with trainers and trainees in one local HEE office.

*There is a possibility that BME trainees are also at a higher risk of adverse ARCP outcomes and further research needs to be conducted to explore this further. The reference to personality needs to be used carefully with evidence of relevant behaviours. Clearly if used without any knowledge of the trainee the risk factors related to personality will not be known unless prior knowledge is available. This may be available by 360 feedback tools.

8.9 Recognition that a minority of trainees should be asked to leave the Specialty training

It is worth highlighting that despite support not all trainees will successfully progress through training. Some trainees may not engage with the support or remediation put in place and should leave the training programme. These trainees would ideally be picked up at an early stage in their training. Some trainees may lack the right motivation or their priorities may have changed.

In rare cases, the reason for a trainee leaving the training programme may be more serious, for example following malpractice. In these cases, the right evidence needs to have been collected and compiled and the right systems need to have been followed, especially if it may result in litigation. Trainers highlighted that fear of being accused of negative behaviours such as bullying or racism were one of the reasons for the 'failure to fail' culture ending in litigation. This finding echoes previous research (Yepes-Rios *et al.*, 2016).

Trainers need to have the right training, feel supported and have the time to be able to support a trainee following an adverse ARCP. In interviews trainers commented that providing challenging feedback was extremely difficult and giving feedback to trainees who lacked insight was even more challenging. This was also the case for overseas trainees who may not understand the ethos of the UK feedback culture. These difficulties were highlighted in the previous chapter and model (Chapter 7) looking at the conflict experienced between trainees' individual values and the medical culture's values. However, trainers commented that the ARCP and e-

portfolios provided evidence to help them provide challenging feedback. If the feedback was given correctly, in a timely way, and in context (as much as possible), and if the portfolio and assessments were used in the correct way, ARCPs should facilitate a trainee's progression in their training (Dormandy and Laycock, 2015).

8.10. Implications for practice

This thesis highlighted some important questions, many of which cannot be answered within the scope of this thesis but are interesting points to consider in relation to practice:

One of the questions raised during the course of this thesis was 'Is the non completion of e-portfolios a sign of an underperforming doctor or is it a sign of a doctor in the wrong training environment?' Findings from this thesis have highlighted that the training environment can impact on a trainee being able to complete their portfolio and get assessments signed off. Work intensity, service provision taking priority over training, and rota patterns can all affect whether a trainee is able to complete their portfolio.

Are doctors identities, and therefore values, beliefs and attitudes changing at the same pace as the medical cultures? This is an interesting question and one which cannot be fully answered in the scope of this thesis. However, we have seen from findings within this thesis that there is a conflict between trainees expectations and those of the medical cultures expectations. For example, trainees expect to have a positive work-life balance, and be able to work LTFT without being perceived as less committed.

There were also incidents within the data where trainees and trainers questioned what makes a good doctor? Is it being able to complete assessments or spending time with your patients. Several trainees commented that their values and what is important to them, which in turn influenced their attitudes toward completing their portfolio, are spending time with their patients rather than with completing their portfolio. Trainers commented that they knew of incidences where trainees had very good portfolios but that they would not employ them because they did not think they were a good with patients.

8.11 Study Limitations

Data collected for Phase One and Three was from data and participants were from one HEE local office in one geographical training region, and therefore may not be generalisable in other geographical regions in the UK. However, findings from international literature in Phase Two and additional literature highlight that many of the findings from Phase One and Phase Three fit with previous research. This research was focused on trainees in secondary care and did not include those in general practice, nor was there sufficient data to compare differences across specialties. However, other literature that did this (Tiffin *et al.*, 2014) reported findings that were generally in agreement with those presented.

Phase Three relied on trainees and trainers volunteering to take part in the study. It seems likely that a selective group of trainees volunteered as there were fewer IMGs than would be expected. However, the very large group of

trainers who participated ensured IMGs were fully discussed and included in the issues raised. However, given the difference in perspective between trainers and trainees it is possible that the perspective of IMG trainees were not fully explored. Data collection from both trainers and trainees provided a better understanding of the issues from both perspectives, which was helpful, however the small sample size of trainees means that it is unlikely that data saturation was reached in this sample.

However, data saturation and theoretical saturation were achieved overall by incorporating data from Phase One and Phase Two. There were several limitations found with the database on ARCP outcomes analysed in Phase One. These limitations included: some missing data within the spreadsheets and no information, or very limited information, on the majority of the protected characteristics of trainees such as: ethnicity, disability, gender reassignment, marriage and civil partnership, religion and belief, sexual orientation.

8.12 Conclusion

The aim of this thesis was '*To identify the factors that either facilitate or hinder medical specialty trainees in their Annual Review of Competency Progression (ARCP), with a focus on adverse ARCP outcomes*'. Findings from this thesis should not be used to negatively stereotype or label trainees, but should be used by trainers to provide early identification of difficulties experienced by trainees to better support them earlier on in their training. Data was collected in three phases; Phase One: a retrospective

observation of ARCP data over a five-year period, Phase Two: a literature review identifying indicators of difficulties in progression through postgraduate training and Phase Three: interviews with trainees who had received adverse ARCP outcomes, and trainers, using a Constructivist Grounded Theory methodology.

Phase One identified which specialty trainees have difficulty progressing through their annual review and documented reasons why. Trainees who were older, male or IMGs were found to be at a greater risk of receiving adverse ARCP outcomes. The most commonly reported reason for trainees receiving an adverse outcome was 'having a lack of evidence'. Phase Two examined the literature and identified seven indicators that are associated with doctors who experience difficulties with progressing in their postgraduate medical training. Indicators identified in the literature review were related to: *age, gender, overseas doctors and ethnicity, personality traits, background, financial issues and issues related to the organisation a trainee is working in*. In Phase Three, trainer and trainee perceptions of the barriers and enablers to progression through specialty training were identified. Barriers were found in three main categories: individual, training environment and society, with associated risk factors (sub-categories). An electric 'circuit' model (was used to illustrate the facilitators and barriers to a trainee's progression (see circuit model above).

Interview data in Phase Three explored in more depth factors that impacted on trainees progressing through their training, and identified facilitators to progressing in their specialty training. Findings could be broken down into three main categories that influenced the progression of a trainee. These

were: 1) individual (issues experienced related to: personality, graduating from overseas, working patterns), 2) training environment (issues experienced related to the training system, academic performance indicators, catching issues early on, 'failure to fail' culture and negative behaviours) and 3) systems (issues related to changing expectations and delivery of training).

In addition, a fourth phase developed a model (Chapter 7; Values model) that helped identify which doctors are most at risk of adverse ARCP

outcomes, to improve support for them. This model drew on findings from Phase Three but was also informed by Phase One (retrospective ARCP data) and Phase Two (literature review) to inform the core values model .

Findings were explained in the context of conflicts between individual values and the medical profession's values and how this conflict explains some of the difficulties experienced in the socialisation and progression of trainees, and a model was put forward to explain and illustrate the conflict. The values model (Chapter 7) identified three main types of trainees at risk of receiving adverse ARCP outcomes. These were: 1) trainees who lacked insight, largely a factor of personality (i.e. the trainees lacked conscientiousness and lacked emotional intelligence), 2) trainees who had graduated overseas and 3) trainees who worked less than full-time (mainly females) (see core values model, Chapter 7).

Several risk factors to a trainee's successful progression through training have been identified and triangulate between all three phases of data collection in this thesis. These identified risk factors include: trainees who had graduated overseas, age of a trainee (related to life stage and older IMGs), the gender of a trainee (part-time trainees with dependents at home

or for men (IMG) and older, male and an IMG), a lack of engagement with training (not accepting feedback and differences in perceptions from trainees and trainers related to accessing and engaging in support and training).

As shown in findings from Phase Three, trainees are working and training within a, busy, changing environment, with a lack of resources (financial and staff). An increase in competency based assessments, shorter training time, organisational problems, and an increase in work intensity can all be related to a trainee experiencing burnout and a lack of resilience. Findings from this thesis have identified the evidence that contributes to trainees facing adverse ARCP outcomes. To support early identification of those trainees at risk I have developed a tool for use by Trusts. The aim is to identify those most at risk and provide support, thus reducing the potential risk of an adverse outcome.

Addressing UK doctors, Terence Stephenson, GMC Chair, said: *“doctors were being forced to make difficult decisions about care and losing out on training opportunities because of the pressures on the health service”*

(Moberly & Bagenal, 2017). In addition, there is also a problem around recruitment and retention of doctors in the UK medical workforce. This has been in part explained by an increase in the number of females working in medicine, and working and training less than full-time and the expectation of a good work-life balance. As identified in the core values model, trainees who work less than full-time (mainly females) are at a greater risk of receiving an adverse ARCP outcome if they are not supported in the right way and if the training culture does not change. Facilitators have been identified in this thesis that are related to the three factors (individual, training

environment and society) which have been found to impact on progression (see circuit model). Some of these facilitators have been translated into recommendations (see recommendations section below).

8.13 Overall Recommendations

1) A validated screening tool should be used to help identify those trainees who are more likely to need additional support in advance of ARCPs and used to provide appropriate support to trainees. (HEE, Trusts)

2) Targeted training needs to be developed to support trainers to give challenging feedback and avoid a failure to fail culture.
Trainers need to receive training on how to provide challenging feedback and the system needs to be simplified to fail trainees when appropriate and protect patients. (HEE, Trust and GMC)

3) Medical education should incorporate resilience training to enable trainees to be better prepared for practice. Resilience training should be introduced in medical education to highlight the importance of student and trainee well-being. (Medical Schools, Trusts and HEE)

- 4) A review of the current ARCP assessments should take place to increase confidence and trust, and reduce perceptions of a tick-box culture.** Trainers and trainees need to have trust in the assessment system. Therefore, the tick box mentality needs to be addressed. (HEE, GMC and Royal Colleges)
- 5) The training structure needs to be more flexible to enable trainees to take time out from their training.** There also needs to be due consideration given to trainees returning to training after a period of absence, with the appropriate support put in place. (HEE Royal Colleges, and Trusts)
- 6) Induction Programmes for overseas doctors need to be provided.** Better inductions for overseas doctors and ongoing support to ensure they understand the NHS system, understand the importance of feedback and collecting evidence for the portfolios. (GMC, HEE, and Trusts)

8.13.1 Areas for future Research

- Further research should be carried out with a larger and national sample to test the 'circuit model' identified in this thesis to ensure its relevance to the wider population
- Research needs to be conducted to explore potential interventions to enhance resilience and reduce burnout.

- Research should be conducted to explore the relevance of adverse ARCP outcomes for BME UK graduated doctors.
- The screening tool developed from the findings of this thesis should be tested to ensure validity and usability with the target population.

8.14 Impact and dissemination

- Presentation (Phase One findings) presented at Ottawa conference in Ottawa, Canada. April, 2014
- Presentation (Phase One and Two) Post Graduate conference, School of Medicine, Pharmacy and Health, Durham University. June, 2015
- Presentation (Phase Two) ASME, Edinburgh. July, 2015
- Presentation at Teikyo University, Women's well-being centre, Tokyo, Japan – (Phase Three Using a Grounded Theory approach, explained by interview data related to working patterns). November, 2015
- Presentation (Phase Three). Ottawa Conference, Perth, Australia. March, 2016
- Presentation on findings to date to General Medical Council Equality and Diversity group (closed meeting). London. May, 2016
- Presentation (overview of the PhD) Postgraduate Conference School of Medicine, Pharmacy and Health, Durham University. June, 2016
- Presentation on findings to NuMed Academic Board. NuMed, Newcastle University, Malaysia. September 2016

- Oral presentation (Phase Three). Health Education England NE Future of Medical Education Conference (FOMEC) regional conference. Newcastle. September, 2016
- Invited to give a presentation at Health Education England Training and Education Working Group on findings. London. June, 2017
- AMEE (oral presentation abstract submitted) Helsinki. August, 2017

8.14.1 Impact

- Invited to sit on Health Education England's ARCP Task and Finish group meeting in April 2017.
- I organised a symposium on resilience in Medical Education (joint conference between Newcastle University and HEE regional office to look at how best to support and introduce resilience and well-being into medical education).

8.14.2 Planned publications from this thesis

- Literature review paper
- Core values model
- Paper on triangulation from all three phases of the data

References

- AARONS GA, SAWITSKY AC. 2006. Organizational climate partially mediates the effect of culture on work attitudes and staff turnover in mental health services. *Administration and Policy in Mental Health and Mental Health Services Research*, 33:289–301.
- ACADEMY OF MEDICAL ROYAL. 2014. Colleges. <https://www.rcophth.ac.uk/wp-content/uploads/2014/12/SPAs-in-consultant-job-plans.pdf> [accessed 3.March.2017].’
- ADSHEAD, G. 2010. Becoming a caregiver: attachment theory and poorly performing doctors. *Medical education*, 44, 125-131.
- AMERICAN PSYCHOLOGICAL ASSOCIATION. *Personality*. <http://www.apa.org/topics/personality/> [accessesed 18 May 2017]
- ARCHER, J. C. 2010. State of the science in health professional education: effective feedback. *Medical education*, 44, 101-108.
- ARCHER J, MCGRAW M, DAVIES H. Assuring validity of multisource feedback in a national programme. *Arch Dis Child*. 2010;95(5):330–335. doi: 10.1136/adc.2008.146209
- ATRI, A., MATORIN, A. & RUIZ, P. 2011. Integration of international medical graduates in US psychiatry: the role of acculturation and social support. *Academic Psychiatry*, 35, 21-26.
- BAKER, S. E. & EDWARDS, R. 2012. National Centre for Research Methods review paper: How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research. *National Centre for Research Methods, Southampton, UK. Available at: http://eprints.ncrm.ac.uk/2273/4/how_many_interviews.pdf* (accessed 4 October 2013).
- BALME. E. GERADA. C, PAGE. L. 2015. Doctors need to be supported, not trained in resilience. *BMJ Careers*. http://careers.bmj.com/careers/advice/Doctors_need_to_be_supported,_not_trained_in_resilience#ref19.
- BARBOUR, R. S. 2001. Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *BMJ: British Medical Journal*. 322: 1115.

- BARRICK M, R., MOUNT M, K., JUDGE T.,A. 2001. Personality and Performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment*. 9: 9-30.
- BECKMAN, T. J., REED, D. A., SHANAFELT, T. D. & WEST, C. P. 2012. Resident physician well-being and assessments of their knowledge and clinical performance. *Journal of general internal medicine*, 27, 325-330.
- BECKMANN N, WOOD R, MINBASHIAN A. 2010. It depends how you look at it: On the relationship between neuroticism and conscientiousness at the within-and the between-person levels of analysis. *Journal of Research in Personality*, 44: 593-601.
- BEE-HORNG L, HSIU-JUNG C, CHANG-WEI W, YAWEN C, MEI-CHING C. 2010. Stress, personal characteristics and burnout among first postgraduate year residents: a nationwide study in Taiwan. *Medical Teacher*; 32:400-407.
- BING-YOU R, HAYES V, VARAKLIS K, TROWBRIDGE R, KEMP H & MCKELVY D. 2017. Feedback for learners in Medical Education: What is known? A scoping Review. *Academic Medicine*. Online: doi: 10.1097/IACM.0000000000000001578
- BLACK D. 2013. Revalidation for trainees and the annual review of competency progression (ARCP) *Clinical Medicine*. 13 (6) 570-572 doi: 10.7861/clinmedicine.13-6-570.
- BLOCK, L., WU, A. W., FELDMAN, L., YEH, H.-C. & DESAI, S. V. 2013. Residency schedule, burnout and patient care among first-year residents. *Postgraduate medical journal*, 89, 495-500.
- BRITISH MEDICAL ASSOCIATION 2016. BMA response to High Court judgment on junior doctor contract. In: BRITISH MEDICAL ASSOCIATION (ed.). London: BMA.
- BMA. 2016. Member Briefing on Workload, Recruitment, Retention and Morale A BMA member briefing for the 3 May 2016 Special Representative Meeting. <https://www.bma.org.uk/-/.../bma-evidence-to-ddrb-sept2016>
- BOOTH, A., SUTTON, A. & PAPAIOANNOU, D. 2016. *Systematic approaches to a successful literature review*, Sage.
- BOUD, D., 2015. Feedback: ensuring that it leads to enhanced learning. *Clinical Teacher*. 12: 3-7.

- BOUD., D & MOLLY E. 2013. *Feedback in higher and Professional Education. Understanding it and doing it well.* Routledge. Taylor & Francis. London, New York.
- BROQUET, K. E. & PUNWANI, M. 2012. Helping international medical graduates engage in effective feedback. *Academic Psychiatry*, 36, 282-287.
- BROSNAN, C. & TURNER, B. S. 2009. *Handbook of the sociology of medical education*, Routledge.
- BRYANT, A. A constructive/ist response to Glaser. About Barney G. Glaser: constructivist grounded theory? Published in FQS 3 (3). Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, 2003.
- BRYANT A & CHARMAZ K. 2010. *The SAGE Handbook of Grounded Theory.* Paperback Ed. Sage.
- BRYMAN, A. 2006. Integrating quantitative and qualitative research: how is it done? *Qualitative research*, 6, 97-113.
- BRYMAN, A. 2015. *Social research methods*, Oxford University press.
- BRYSON, E. O. 2008. Should anaesthesia residents with a history of substance abuse be allowed to continue training in clinical anaesthesia? The results of a survey of anaesthesia residency program directors. *Journal of clinical anaesthesia*, 21, 508-513.
- BUDDEBERG-FISCHER, B., KLAGHOFER, R., STAMM, M., SIEGRIST, J. & BUDDEBERG, C. 2008. Work stress and reduced health in young physicians: prospective evidence from Swiss residents. *International archives of occupational and environmental health*, 82, 31-38.
- CAMPBELL, J., PROCHAZKA, A. V., YAMASHITA, T. & GOPAL, R. 2010. Predictors of persistent burnout in internal medicine residents: a prospective cohort study. *Academic Medicine*, 85, 1630-1634.
- CANTILLION, P., SARGEANT J. 2008. Giving feedback in clinical settings. *BMJ*; 337.
- CASPI, A, BRENT W. R, & L. SHINER RA. 2005. Personality development: Stability and change. *Annu. Rev. Psychol.* 56: 453-484.
- CARTER, K. DELAMONT, S. 1996. *Qualitative research: The emotional dimension*, Avebury.

CHARMAZ, K. 2003. Grounded Theory Methodology: Objectivist and Constructivist Qualitative Methods. In: LINCOLN, N. K. D. A. Y. (ed.) *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage.

CHARMAZ, K. 2008. Constructionism and the Grounded Theory. In: HOLSTEIN, J. A. & GUBRIUM, J. (eds.) *Handbook of Constructionist Research*. New York: The Guilford Press.

CHARMAZ, K. 2009. *Constructing grounded theory: a practical guide through qualitative analysis*, Los Angeles; London, SAGE.

CHEN, P. G.-C., CURRY, L. A., BERNHEIM, S. M., BERG, D., GOZU, A. & NUNEZ-SMITH, M. 2011. Professional challenges of non-US-born international medical graduates and recommendations for support during residency training. *Academic Medicine*, 86, 1383.

CLELAND JR, JOHNSTON P, WATSON V, KRUCIEN N, SKATUN D. 2016. What do UK doctors in training value in a post? A discrete choice experiment. *Medical Education*. 50 (2) 189–202:

CLELAND, J., LEGGETT, H., SANDARS, J., COSTA, M. J., PATEL, R. & MOFFAT, M. 2013. The remediation challenge: theoretical and methodological insights from a systematic review. *Medical education*, 47, 242-251.

COHEN JS, LEUNG Y, FAHEY M, HOYT L, SINHA R, CAILLER L, RAMCHANDAR K, MARTIN J, PATTEN S. 2008. The happy docs study: A Canadian Association of Internes and Residents well-being survey examining resident physician health and satisfaction within and outside of residency training in Canada. *BMC Res Notes*; 1:105. 7.

COHEN, D. & RHYDDERCH, M. 2006. Measuring a doctor's performance: personality, health and well-being. *Soc Occupational Med*. 56; 7: 438-440 <https://doi.org/10.1093/occmed/kql076>.

COHEN, D., RHYDDERCH, M. & COOPER, I. 2010. Managing Remediation. *Understanding Medical Education*. Wiley-Blackwell.

COOPER, CL. 2006. Organisational strategies for managing occupational stress. In: *Stress, self-esteem, health work*, 164-90.

COLLIER, V. U., MCCUE, J. D., MARKUS, A. & SMITH, L. 2002. Stress in medical residency: status quo after a decade of reform? *Annals of Internal Medicine*, 136, 384-390.

COLTHART, I., BAGNALL, G., EVANS, A., ALLBUTT, H., HAIG, A., ILLING, J. & MCKINSTRY, B. 2008. The effectiveness of self-assessment on the identification of learner needs, learner activity, and impact on clinical practice: BEME Guide no. 10. *Medical teacher*, 30, 124-145.

CONFERENCE OF POSTGRADUATE MEDICAL DEANS 2016. *A reference guide for postgraduate specialty training in the UK ('gold guide')*. 6 ed. London: Academy of Medical Royal Colleges.

COSTA, P.T., McCRAE, R.R. 1992. *The revised NEO Personality Inventory (Neo PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional manual*. Odessa, FL: Psychological Assessment Resources.

COX, J. 2006. *Understanding doctors' performance*, Radcliffe Publishing.

CRESWELL, J. W. 2012. *Qualitative inquiry and research design: Choosing among five approaches*, Sage publications.

CRESWELL, J. W. 2003. *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publications.

CROTTY M. *The Foundations of Social Research. Meaning and Perspective in the Research Process*. Sage. 1998.

CROSSLEY J., Johnson G, Booth J & Wade W. 2011. Good questions, good answers: construct alignment improves the performance of workplace-based assessment scales. *Medical Education*, 45: 560–569.

DAHL GREEN, W. 2016. *Public support for doctors strike weakened by all-out action* [Online]. YouGov. Available: <https://yougov.co.uk/news/2016/04/04/all-out-doctors-strike/> [Accessed 11 January 2017 11 January 2017].

DAHM, M. R. 2011. Patient centred care: Are international medical graduates' expert novices'? *Australian family physician*, 40, 895.

DATTA, S. T. & DAVIES, S. J. 2014. Training for the future NHS: training junior doctors in the United Kingdom within the 48-hour European working time directive. *BMC medical education*, 14, S12.

DAVEY, B. MURRELLS, T. AND ROBINSON, S. 2005. Returning to work after maternity leave: nurses' motivations and preferences, *Work, Employment and Society*, 19, 2,: 23-33.

DE OLIVEIRA FILHO, G. R. & VIEIRA, J. E. 2007. The relationship of learning environment, quality of life, and study strategies measures to anaesthesiology resident academic performance. *Anaesthesia & Analgesia*, 104, 1467-1472.

DELVA, D., SARGEANT, J., MILLER, S., HOLLAND, J., ALEXIADIS BROWN, P., LEBLANC, C., LIGHTFOOT, K. & MANN, K. 2013. Encouraging residents to seek feedback. *Medical teacher*, 35, e1625-e1631.

DEPARTMENT OF HEALTH. 2003. Modernising Medical Careers. London: Department of Health.

DEPARTMENT OF HEALTH 2006. Doctors, Good, Safer Patients: Proposals to Strengthen the System and Improve the Performance of Doctors and to Protect the Safety of Patients. London: Department of Health.

DEVERS, K. J. & FRANKEL, R. M. 2000. Study design in qualitative research--2: Sampling and data collection strategies. *Education for health*, 13, 263.

DICKSON-SWIFT, V., JAMES, E. L., KIPPEN, S. & LIAMPUTTONG, P. 2007. Doing sensitive research: what challenges do qualitative researchers face? *Qualitative research*, 7, 327-353.

DICKSON N. 2012.

http://careers.bmj.com/careers/advice/GMC_to_introduce_formal_recognition_for_trainers_mentors_and_educational_supervisors (23 April 2012).

DIXON-WOODS M, CAVERS D, AGARWAL S, ANNANDALE E, ARTHUR A, HARVEY J, HSU R, KATBAMNA S, OLSEN R, SMITH L, RILEY R, SUTTON AJ. 2006. Conducting a critical interpretive synthesis of the literature on access to healthcare by vulnerable groups. *BMC Medical Research Methodology*, 6; 35.

DOHERTY, E. M. & NUGENT, E. 2011. Personality factors and medical training: a review of the literature. *Medical Education*, 45, 132-140.

- DONALDSON, L. J., PANESAR, S. S., MCAVOY, P. A. & SCARROTT, D. M. 2014. Identification of poor performance in a national medical workforce over 11 years: an observational study. *BMJ quality & safety*, 23, 147-152.
- DUNN L B, IGLEWICZ I, MOUTIER C. 2008. A Conceptual Model of Medical Student well-being: Promoting resilience and preventing burnout. *Academic Psychiatry*. 32, 1:44-53.
- DUNNE, C. 2011. The place of the literature review in grounded theory research. *International Journal of Social Research Methodology*, 14, 111-124.
- DUDEK NL, MARKS M, REGEHR G. 2005. Failure to Fail: The Perspectives of Clinical Supervisors. *Academic Medicine*, 80:10.10 - pp S84-S87.
- DYRBYE L, SHANAFELT T. 2016. A narrative review on burnout experienced by medical students and residents. *Medical Education*, 50: 132-149.
- DYRBYE LN, THOMAS MR, SHANAFELT TD. 2006. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Academic Medicine*. 2006; 81:354–373.
- DYRBYE LN, WEST CP, SATELE D, BOON S, TAN L, SLOAN J, SHANAFELT TD. 2014. Burnout among US medical students, residents and early career physicians relative to the general US population. *Academic Medicine*, 89: 443-51.
- EPSTEIN R,. 2007. Assessment in Medical Education. *The New England Journal of Medicine*. 356 (4): 387-395.
- EPSTEIN RM AND KRASNER MS. 2013. Physician Resilience: What It Means, Why It Matters, and How to Promote It, *Academic Medicine*; 88(3): 301-03.
- EPSTEIN, R. M. & HUNDERT, E. M. 2002. Defining and assessing professional competence. *Jama*, 287, 226-235.
- ESMAIL, A. & ROBERTS, C. 2013. Academic performance of ethnic minority candidates and discrimination in the MRCGP examinations between 2010 and 2012: analysis of data. *BMJ*, 347, f5662.
- EVANS, D. E., ALSTEAD, E. M. & BROWN, J. 2010. Applying your clinical skills to students and trainees in academic difficulty. *The clinical teacher*, 7, 230-235.

FILHO DE OLIVEIRA, VIEIRA JE. 2007. The relationship of learning environment, quality of life and study strategies measures to anaesthesiology resident academic performance. *Anesth Analg*, 82: 587-92.

FINN G.M., WALKER SJ., Carter M., Cox., DR., Hewitson R., Smith C.F., 2015. Exploring Relationships Between Personality and Anatomy Performance. *Anatomical Sciences Education*. 8: 547-554.

FRITH L. 2015. The changing National Health Service: market-based reform and morality *Int J Health Policy Manag*, 4:4, 253–255.

FIRTH-COZENS, J. & KING, J. 2006. Are psychological factors linked to performance? *Understanding doctors' performance*. Oxford: Radcliffe Publishing, 61-70.

FIRTH-COZENS J PAYNE R. 2006. (eds). The Psychological Problems of doctors. In *Stress in Health Care Professionals: Psychological and Organisational Causes and interventions*. John Wiley & Sons, Chichester.

FIRTH-COZENS, J. 2008. Doctors with difficulties: why so few women? *Postgraduate medical journal*, 84: 318-320.

FRANCIS INQUIRY REPORT, (2012) <https://www.kingsfund.org.uk/projects/francis-inquiry-report> [accessed 3.3.17]

GENERAL MEDICAL COUNCIL. 2005. *Shipman the fifth report*. 25 January 2005. Response General Medical Council. [Accessed 26.2.2017].

GENERAL MEDICAL COUNCIL. 2015. *Promoting excellence: standards for medical education and training*. General Medical Council. <http://www.gmc-uk.org/education/standards.asp> [accessed 24.March.2017].

GENERAL MEDICAL COUNCIL. 2015. Chapter one: our data on doctors working in the UK. Our data on doctors working in the UK.

http://www.gmc-uk.org/Chapter_1_SOMEPEP_2015.pdf_63501394.pdf

GENERAL MEDICAL COUNCIL. 2013 Good Medical Practice. General Medical Council.

http://www.gmc-uk.org/static/documents/content/GMP_.pdf [Accessed 13.February .2017].

GENERAL MEDICAL COUNCIL. *An introduction to revalidation* [Online]. General Medical Council. Available: <http://www.gmc-uk.org/doctors/revalidation/9627.asp> [accessed 13.March.2017].

GENERAL MEDICAL COUNCIL. 2016 State of Medical Education and Practice in the UK. http://www.gmc-uk.org/SOMEPEP_2016_Full_Report_Lo_Res.pdf 68139324.pdf

GENERAL MEDICAL COUNCIL. 2016. National Training Survey. http://www.gmc-uk.org/education/national_summary_reports.asp

GERADA C. 2016. How to improve junior doctors' morale and wellbeing. *BMJ Careers*. London.

http://careers.bmj.com/careers/advice/How_to_improve_junior_doctors%E2%80%99_morale_and_wellbeing# [accessed 11 January 2017]

GHODSE, H. & GALEA, S. 2006. Misuse of drugs and alcohol. *Understanding Doctors' Performance*: 38-47.

GILBERT, N. & STONEMAN, P. 1993. *Researching social life*, Sage.

GIRARD, D. E. & HICKAM, D. H. 1991. Predictors of clinical performance among internal medicine residents. *Journal of general internal medicine*, 6, 150-154.

GLASER, B. G. & STRAUSS, A. L. 2009. *The discovery of grounded theory: Strategies for qualitative research*, Transaction publishers.

GLASER, B. G. 1978. *Theoretical sensitivity: Advances in the methodology of grounded theory*, Sociology Pr.

GLASER, B. G. 1992. Basics of grounded theory: Emergence vs. forcing. *Mill Valley, CA*.

GLASER, B. G. 1998. *Doing grounded theory: Issues and discussions*, Sociology Press.

GLASER, B. G. 2001. *The grounded theory perspective: Conceptualization contrasted with description*, Sociology Press.

GLASER, B. G. 2003. *The grounded theory perspective II: Descriptions remodelling of grounded theory methodology*, Sociology Press.

GLASER, B. G. 2005. *The grounded theory perspective III: Theoretical coding*, Sociology Press.

GOZU, A., KERN, D. E. & WRIGHT, S. M. 2009. Similarities and differences between international medical graduates and US medical graduates at six Maryland community-based internal medicine residency training programs. *Academic Medicine*, 84, 385-390.

GOLD GUIDE. 2007. UK DEPARTMENTS OF HEALTH 2007. A guide to postgraduate speciality training in the UK: the. 1 ed. London: Departments of Health for the UK.

GOLD GUIDE. 2016. UK DEPARTMENTS OF HEALTH 2007. A guide to postgraduate speciality training in the UK: the. 6 ed. London: Departments of Health for the UK. <http://www.jcst.org/key-documents/docs/a-reference-guide-for-postgraduate-specialty-training-in-the-uk-gold-guide-2016>.

GREENAWAY, D. 2013. Securing the future of excellent patient care: final report of the independent review. Shape of Training. 2013.

GREENE, J. C., CARACELLI, V. J. & GRAHAM, W. F. 1989. Toward a conceptual framework for mixed-method evaluation designs. *Educational evaluation and policy analysis*, 11, 255-274.

GUBA, E. G. & LINCOLN, Y. S. 1994. Competing paradigms in qualitative research. *Handbook of qualitative research*, 2, 105.

HAFFERTY, F. W. & FRANKS, R. 1994. The hidden curriculum, ethics teaching, and the structure of medical education. *Academic Medicine*, 69, 861-71.

HAIG, A. & DOZIER, M. 2003. BEME Guide no 3: systematic searching for evidence in medical education--Part 1: Sources of information. *Medical teacher*, 25, 352-363.

HARRISON, J. 2006. Illness in doctors and dentists and their fitness for work—are the cobbler's children getting their shoes at last? : *Soc Occupational Med*, 56 (2): 75-76.

<https://doi.org/10.1093/occmed/kqj042>

HAWTON, K., CLEMENTS, A., SAKAROVITCH, C., SIMKIN, S. & DEEKS, J. J. 2001. Suicide in doctors: a study of risk according to gender, seniority and specialty in medical practitioners in England and Wales, 1979–1995. *Journal of Epidemiology and Community Health*, 55, 296-300.

HEALTH EDUCATION ENGLAND. 2017. *About us* [Online]. Health Education England Available: <https://hee.nhs.uk/about-us> [accessed 23.March2017].

HEGGERTVEIT- AOUDIA S. 2012. Profiles in Diversity. *Journal. Culture, Values and the impact at work*. <http://www.diversityjournal.com/9823-culture-values-and-the-impact-at-work/> [accessed 12 March 2017].

HELMICH E & DORNAN T. 2012. Do you really want to be a doctor? The highs and lows of identity development. *Medical Education*; 46:132-142.

HODGES, B., REGEHR, G. & MARTIN, D. 2001. Difficulties in recognizing one's own incompetence: novice physicians who are unskilled and unaware of it. *Academic Medicine*, 76, S87-S89.

HOFSTEDE G, HOFSTEDE GJ, MINKOV M. 2010b. Cultures and Organizations. Software of the Mind: Intercultural cooperation and its importance for survival 3rd. McGraw Hill, New York.

HOFSTEDE, G. H. & HOFSTEDE, G. 2001. *Culture's consequences: Comparing values, behaviours, institutions and organizations across nations*, Sage.

HOCHSCHILD A. 1983. The managed Heart: The Commercialization of Human Feeling. Berkeley, CA: university of California Press.

HUMPHREY, C., HICKMAN, S. & GULLIFORD, M. C. 2011. Place of medical qualification and outcomes of UK General Medical Council "fitness to practise" process: cohort study. *Bmj*, 342, d1817.

HYMAN, S. A., MICHAELS, D. R., BERRY, J. M., SCHILDCROUT, J. S., MERCALDO, N. D. & WEINGER, M. B. 2011. Risk of Burnout in Perioperative Clinicians. A Survey Study and Literature Review. *The Journal of the American Society of Anaesthesiologists*, 114, 194-204.

ILLING J, KERSON C, MORROW G, BURFORD B. 2009. 'The experiences of UK, EU and non-EU medical graduates making the transition to the UK workplace'. Final report to the Economic Social Research Council.

<http://www.esrcsocietytoday.ac.uk/esrcinfocentre/viewawardpage.aspx?awardnumber=RES-153-25-0097>.

ILLING, J. 2007. *Thinking about research: frameworks, ethics and scholarship*, Association for the Study of Medical Education.

ILLING J. 2013. Thinking about research: frameworks, ethics and scholarship. In *Understanding Medical Education*. Swanwick, T Wiley Blackwell.

ILLING, J. C., MORROW, G. M., NEE KERGON, C. R. R., BURFORD, B. C., BALDAUF, B. K., DAVIES, C. L., PEILE, E. B., SPENCER, J. A., JOHNSON, N. & ALLEN, M. 2013. Perceptions of UK medical graduates' preparedness for practice: A multi-centre qualitative study reflecting the importance of learning on the job. *BMC medical education*, 13, 34.

ILLING, J., KERGON, C., MORROW, G. & BURFORD, B. 2009. The experiences of UK, EU and non-EU medical graduates making the transition to the UK workplace: *Full Research Report, ESRC End of Award Report*. RES-153-25-0097. Swindon: ESRC.

IPIP. 2017. INTERNATIONAL PERSONALITY ITEM POOL (IPIP) *A scientific collaborator for the development of advanced measures of personality and other individual differences*. University of Oregon and Oregon Research Institute, Eugene, OR. <http://iPIP.ori.org/> (accessed 18 May 2017).

JENSEN, PM, TROLLOPE-KUMAR, WATERS, H, EVERSON J. 2008. Building physician resilience. *Can Fam Physician*. 54(5): 722-9.

KAFFASH, J. 2012. RCGP faces legal threat over international GP trainee failure rates. *Pulse*.

KAUFMAN DAVID M AND MANN KAREN V. 2010. Chapter 2: Teaching and Learning in medical education: how theory can inform practice. In. *Understanding Medical Education. Evidence, Theory and Practice*. Edited by: SWANWICK T. ASME. Wiley-Blackwell.

KAY, M., MITCHELL, G., CLAVARINO, A. & DOUST, J. 2008. Doctors as patients: a systematic review of doctors' health access and the barriers they experience. *Br J Gen Pract*, 58, 501-508.

KEHOE A, MACLACHLAN, J, METCALFE J, FORREST S, CARTER M, ILLING J. 2016. Supporting international medical graduates' transition to their host-country: realist synthesis. *Medical Education*. Volume 50, 2016 (10): 1015–1032.

KEHOE, A. 2017. *A study to explore how interventions support the successful transition of Overseas Medical Graduates to the NHS: Developing and refining theory using realist approaches*. Durham University. [Unpublished].

KENNY, M. & FOURIE, R. 2014. Tracing the history of grounded theory methodology: From formation to fragmentation. *The Qualitative Report*, 19, 1.

- KENNY, M. & FOURIE, R. 2015. Contrasting Classic, Straussian, and Constructivist Grounded Theory: Methodological and Philosophical Conflicts. *The Qualitative Report*, 20, 1270.
- KRUGER, J. & DUNNING, D. 1999. Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of personality and social psychology*, 77, 1121.
- KUZEL, A. J. 1992. Sampling in qualitative inquiry. Doing qualitative research. Crabtree, Benjamin F. (Ed); Miller, William L. (Ed). (1992). (pp. 31-44). Thousand Oaks, CA, US: Sage Publications, Inc, xvi, 276.
- LIDLAW, S T., KAUFMAN, D. M., MACLEOD, H., VAN ZANTEN, S., SIMPSON, D. & WRIXON, W. 2006. Relationship of resident characteristics, attitudes, prior training and clinical knowledge to communication skills performance. *Medical education*, 40, 18-25.
- LACHISH S., SVIRKO E, GOLDACRE MJ, LAMBERT T. 2016. Factors associated with less-than-full-time working in medical practice: results of surveys of five cohorts of UK doctors, 10 years after graduation. *Human Resource Health*. 14(1):62.
- LINGUARD, .KENNEDY, TJ. 2010. *Qualitative research methods in medical education*. 323.
- LEAPE, L. L. & FROMSON, J. A. 2006. Problem doctors: is there a system-level solution? *Annals of Internal Medicine*, 144, 107-115.
- LEBLANC, V. R. 2009. The effects of acute stress on performance: implications for health professions education. *Academic Medicine*, 84, S25-S33.
- LIEVENS F., ONES SO., DILCHERT S. 2009. Personality Scale Validities Increase Throughout Medical School. *Journal of applied Psychology*. 94, 6: 1514-1535.
- LINCOLN, Y. S. & GUBA, E. G. n.d. Naturalistic Inquiry. 1985 Newbury Park. *Calif Sage*.
- LUCAS, P. J., BAIRD, J., ARAI, L., LAW, C. & ROBERTS, H. M. 2007. Worked examples of alternative methods for the synthesis of qualitative and quantitative research in systematic reviews. *BMC medical research methodology*, 7, 4.

LUE, B.-H., CHEN, H.-J., WANG, C.-W., CHENG, Y. & CHEN, M.-C. 2010. Stress, personal characteristics and burnout among first postgraduate year residents: a nationwide study in Taiwan. *Medical teacher*, 32, 400-407.

MACLELLAN, A.-M., BRAILOVSKY, C., RAINSBERRY, P., BOWMER, I. & DESROCHERS, M. 2010. Examination outcomes for international medical graduates pursuing or completing family medicine residency training in Quebec. *Canadian Family Physician*, 56, 912-918.

MAHAJAN, J. & STARK, P. 2007. Barriers to education of overseas doctors in paediatrics: a qualitative study in South Yorkshire. *Archives of disease in childhood*, 92, 219-223.

MARKAKIS KATHRYN M, BECKMAN, HOWARD B, SUCHMAN, ANTHONY L, AND. FRANKEL RICHARD M. 2000. The Path to Professionalism: Cultivating Humanistic Values and Attitudes in Residency Training. *Academic Medicine*, 75(2):n141-150.

MASLACH, C. & JACKSON, S. E. 1981. The measurement of experienced burnout. *Journal of organizational behaviour*, 2, 99-113.

MASLACH, C. & JACKSON, S. E. 1982. Burnout: The cost of caring. 1982. *Englewood Cliffs, NJ, Prentice Hall*.

MASON, M. 2010. Sample size and saturation in PhD studies using qualitative interviews. *Forum qualitative Sozialforschung/Forum: qualitative social research*. MCGREGOR, S. L. T. 2015. Figure 1 Stages of pre professional socialization In: SCIENTIFIC FIGURE ON RESEARCHGATE (ed). Home economics pre-professional socialization published: ResearchGate.

MCINTOSH, B., MCQUAID, R. & MUNRO, A. 2015. The impact of gender perceptions and professional values on women's careers in nursing. *Gender in Management: An International Journal*, 30, 26-43.

MCLACHLAN, J., ILLING, J., ROTHWELL, C., MARGETTS, J. K., ARCHER, J. & SHREWSBURY, D. 2012. Developing an evidence base for the Professional and Linguistics Assessments Board (PLAB) test. *Literature review submitted to GMC*.

MACLELLAN, AM. 2010. Examination outcomes for international medical graduates pursuing or completing family medicine residency training in Quebec. *Canadian Family Physician*, 56: 912-919.

MCMANUS IC, KEELING A & PAICE E. 2004. Stress, burnout and doctors' attitudes to work are determined by personality and learning style: A twelve year longitudinal study of UK medical graduates. *BMC Medicine*, 2: 29.

MEDICAL SCHOOL COUNCIL. 2014. *Statement on the Core values and attributes needed to study medicine*. Medical School Council.

MELTZER H, GRIFFITHS C, BROCK A, ROONEY C, JENKINS R. 2008. Patterns of suicide by occupation in England and Wales: 2001–2005. *The British Journal of Psychiatry*. Jun 2008, 193(1):73-76. DOI:10.1192/bjp.bp.107.040550

MERTON, R.K., P.L. KENDALL, AND G.G. 1957. Reader (eds). *The student-physician*. Cambridge: Harvard University Press.

MITCHELL C, BHAT S, HERBERT A, BAKER P. 2011. Work-based assessments of junior doctors: do scores predict training difficulties? *Medical Education*. 2011; 45: 1190-1198.

MITCHELL, M., SRINIVASAN, M., WEST, D. C., FRANKS, P., KEENAN, C., HENDERSON, M. & WILKES, M. 2005. Factors affecting resident performance: development of a theoretical model and a focused literature review. *Academic Medicine*, 80, 376-389.

MOBERLY T & BAGENAL J. Junior doctors' frustrations are broader than the contract dispute. *BMJ Careers*. 21 Jan 2016
[http://careers.bmj.com/careers/advice/Junior doctors' frustrations are broader than the contract dispute](http://careers.bmj.com/careers/advice/Junior_doctors%E2%80%99_frustrations_are_broader_than_the_contract_dispute) [accessed 10 March 2017]

MOLINUEVO BEATRIZ & TORRUBIA. 2013. Rafael. Does personality predict medical students' attitudes to learning communication skills? *International Journal of Medical Education* 2; 4:155-161.

MONROUXE LV. Identity, identification and medical education: why should we care? *Medical Education* 2010; 44(1):40-9.

MONROUXE L V & REES C. 2012. "It's just a clash of cultures": emotional talk within medical students' narratives of professionalism dilemmas. *Adv in Health Sci Educ*. 17:671–701 DOI 10.1007/s10459-011-9342-z :671 701.

- MORROW, G, ROTHWELL C, WRIGHT P. 2012. Self-directed learning groups: a vital model for education, support and appraisal amongst sessional GPs. *Education for Primary Care*. Accepted 2012. 23 (4): 270-6.
- MORROW, G., ROTHWELL, C., BURFORD, B. & ILLING, J. 2013. Cultural dimensions in the transition of overseas medical graduates to the UK workplace. *Medical teacher*, 35, e1537-e1545.
- MORROW G, Burford B, CARTER M, Illing J. 2014. Have restricted working hours reduced junior doctors' experience of fatigue? A focus group and telephone interview study. *BMJ Open*. <http://dx.doi.org/10.1136/bmjopen-2013-004222>
- MORSE, J. M. 1994. Designing funded qualitative research. . In: DENZIN NK, L. Y. (ed.) *Handbook of qualitative research*: Thousand Oaks: Sage Publications Google Scholar.
- NCAS. 2011. Concerns about professional practice and associations with age, gender, place of qualification and ethnicity – 2009/10 data. NCAS.
- NCCA, 2004. Understanding Performance Issues in doctors. National Clinical Assessment Report.
www.ncas.nhs.uk/EasySiteWeb/GatewayLink.aspx?allId=9371
- NPSA. 2009. NCAS Casework – The First Eight Years Summary. National Patient Safety Agency.
- NVIVO, Q. S. R. 2002. Using NVivo in Qualitative Research. *QRS International*.
- OLESEN, V. L., BRYANT, A. & CHARMAZ, K. 2010. Feminist qualitative research and grounded theory: Complexities, criticisms, and opportunities. *The SAGE Handbook of Grounded Theory: Paperback Edition*, 417.
- ONWUEGBUZIE, A. J. & LEECH, N. L. 2006. Linking research questions to mixed methods data analysis procedures 1. *The Qualitative Report*, 11, 474-498.
- OPPONG, S. H. 2013. The problem of sampling in qualitative research. *Asian journal of management sciences and education*, 2, 202-210.
- PAICE, E. & ORTON, V. 2004. Early signs of the trainee in difficulty. *Hospital Medicine*, 65, 238-240.

- PAICE, E. 2009. Identification and management of the underperforming surgical trainee. *ANZ journal of surgery*, 79, 180-184.
- PAPADAKIS, M. A., ARNOLD, G. K., BLANK, L. L., HOLMBOE, E. S. & LIPNER, R. S. 2008. Performance during internal medicine residency training and subsequent disciplinary action by state licensing boards. *Annals of Internal Medicine*, 148, 869-876.
- PAPADAKIS, M. A., HODGSON, C. S., TEHERANI, A. & KOHATSU, N. D. 2004. Unprofessional behaviour in medical school is associated with subsequent disciplinary action by a state medical board. *Academic Medicine*, 79, 244-249.
- PART, H. M. & MARKERT, R. J. 1993. Predicting the first-year performances of international medical graduates in an internal medicine residency. *Academic Medicine*, 68, 856-8.
- PASSI V, JOHNSON S, PEILE E, WRIGHT S, HAFFERTY F, JOHNSON N. 2013. BEME Collaboration Doctor Role Modelling in Medical Education. *BEME Collaboration*.
- PRIDEAUX D. 2003. Curriculum Design. *British Medical Journal*, 326:268.
- PRINS JT, GAZENDAM-DONOFRIO SM, TUBBEN BJ, VAN DER HEIJDEN FMMA. VAN DE WEIL HBM, HOEKSTRA-WEEBERS JEHM. 2007. Burnout in medical residents: a review. *Medical Education*, 41(8): 788-800.
- PULSE. 2012. *RCGP faces legal threat over international GP trainee failure rates*. <http://www.pulsetoday.co.uk/practice-business/practice-topics/education> [accessed 17 December.2012].
- PYNE, Y. & BEN-SHLOMO, Y. 2015. Older doctors and progression through specialty training in the UK: a cohort analysis of General Medical Council data. *BMJ open*, 5, e005658.
- RAND. 2011. Use of outcome metrics to measure quality in education and training of healthcare professionals: A scoping review of international experiences. RAND Europe.
- R CORE TEAM 2017. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>

- REID W. 2016. Transforming postgraduate medical training in the NHS. *BMJ Careers*. 06 Sep 2016
http://careers.bmj.com/careers/advice/Transforming_postgraduate_medical_training_in_the_NHS#ref3 [accessed 10 March 2017].
- RICH A, VINEY R NEEDLEMAN S, GRIFFIN A, WOOLF K. 2016. You can't be a person and a doctor': the work–life balance of doctors in training—a qualitative study <http://bmjopen.bmj.com/content/bmjopen/6/12/e013897.full.pdf>
- RISDON, C., COOK, D. & WILLMS, D. 2000. Gay and lesbian physicians in training: a qualitative study. *Canadian Medical Association Journal*, 162, 331-334.
- RIMMER A. 2017. Trainees dissatisfied with “tick box” ARCP, researchers find. *BMJ Careers*.
http://careers.bmj.com/careers/advice/Trainees_dissatisfied_with_%E2%80%9Ctick_box%E2%80%9D_ARCP%2C_researchers_find [accessed 20 May 2017].
- ROBERTS, B. W., WALTON, K. E., & VIECHTBAUER, W. 2006. Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 132, 1–25.
<http://dx.doi.org/10.1037/0033-2909.132.1.1>
- ROBERTS, B. W., LUO, J., BRILEY, D. A., CHOW, P. I., SU, R., & HILL, P. L. 2017. A Systematic Review of Personality Trait Change through Intervention. *Psychological Bulletin*, 143(2), 117-141.
- RONSON, G. & WELSH, M. 2011. 'Doctors in difficulty': how can we help them to achieve their potential? *Education for primary care: an official publication of the Association of Course Organisers, National Association of GP Tutors, World Organisation of Family Doctors*, 22, 420.
- ROTHWELL, C., MORROW, G., BURFORD, B. & ILLING, J. 2013. Ways in which healthcare organisations can support overseas-qualified doctors in the UK. *International Journal of Medical Education*, 4, 75.
- ROYAL COLLEGE OF ANAESTHETISTS/ROYAL COLLEGE OF SURGEONS OF ENGLAND. (2009). *WTD - Implications and Practical Suggestions to Achieve Compliance*. Available at: http://www.rcoa.ac.uk/docs/RCSRCOA_report.pdf [accessed 11 January 2017].

ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS/ ROYAL COLLEGE OF PAEDIATRICS AND CHILD HEALTH 2008. Children's And Maternity Services In 2009: Working Time Solutions. In: SUGGESTIONS, E. W. T. D. C. (ed.) *Royal College of Ophthalmologists. (2008). European Working Time Directive College Suggestions*. London: The Royal College of Obstetricians and Gynaecologists and the Royal College of Paediatrics and Child Health working in partnership with National Workforce Projects.

ROYAL LIVERPOOL CHILDREN'S, I. & REDFERN, M. 2001. *The Royal Liverpool Children's Inquiry report*, Norwich, Stationery Office.

RUBIN, H. J. & RUBIN, I. S. 2011. *Qualitative interviewing: The art of hearing data*, Sage.

RUTTER, M. 2012. Resilience as a dynamic concept. *Development and Psychopathology*. Cambridge University Press. **24 (2)**: 335-344
DOI: <https://doi.org/10.1017/S0954579412000028>
<https://www.cambridge.org/core/journals/development-and-psychopathology/article/resilience-as-a-dynamic-concept/B82378BCEFAA45A6D5BB433989312F55> [accessed 18.5.17].

SAMKOFF, J. S. & MCDERMOTT, R. W. 1989. Emotional impairment in resident physicians. *Pennsylvania medicine*, 92, 40.

SANDERS, D. L. & BELL, D. C. 2012. Worlds apart: training in rural South Africa. *The clinical teacher*, 9, 99-104.

SARGENT J. M., 2006. *Understanding the influence of emotions and reflection upon multi-source Feedback for Physicians: Learning and Change*. Maastricht: University of Maastricht. 59-76.

SARGENT, M. C., SOTILE, W., SOTILE, M. O., RUBASH, H. & BARRACK, R. L. 2004. Stress and coping among orthopaedic surgery residents and faculty. *J Bone Joint Surg Am*, 86, 1579-1586.

SCHERNHAMMER, E. S. & COLDITZ, G. A. 2004. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). *American Journal of Psychiatry*, 161, 2295-2302.

SCHUWIRTH, L. W. T. & VAN DER VLEUTEN, C. P. M. 2010. How to design a useful test: The principles of assessment. *Understanding medical education: Evidence, theory and practice*, 241-254.

SHANAFELT TE, BALCH CM, DYRBYE L, BECHAMPS G, RUSSELL T, SATELE DSATELE D, RUMMANS T, SWARTZ K, NOVOTNY PJ, SLOAN J, ORESKOVICH MR. 2011. Special Report: Suicidal Ideation among *American Surgeons*. 146(1): 54-62.

SHANAFELT, T. D., BRADLEY, K. A., WIPF, J. E. & BACK, A. L. 2002. Burnout and self-reported patient care in an internal medicine residency program. *Annals of internal medicine*, 136, 358-367.

SHWARTZ, S., H., 2012. An Overview of Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, 2 (1). [http:// dx.doi.org/10.9707/2307-0919.1116](http://dx.doi.org/10.9707/2307-0919.1116) [accessed 22 May 2017].

SILVERMAN, D. & MARVASTI, A. B. 2008. *Doing qualitative research: a comprehensive guide*, London [u.a.], SAGE.

SLOWTHER A, LEWANDO HUNDT G, TAYLOR R, PURKIS J. 2009. Non UK qualified doctors and Good Medical Practice: The experience of working within a different professional framework.

SLOWTHER A, LEWANDO HUNDT GA, PURKIS J, TAYLOR R. 2012. Experiences of non-UK-qualified doctors working within the UK regulatory framework: A qualitative study. *J R Soc Med*; 105: 157–165. SLOWTHER, A. M., MCCLIMANS, L. & PRICE, C. 2011. Development of clinical ethics services in the UK: a national survey. *Journal of Medical Ethics*, medethics-2011-100173.

SLOWTHER, A., LEWANDO HUNDT, G. A., PURKIS, J. & TAYLOR, R. 2012. Experiences of non-UK-qualified doctors working within the UK regulatory framework: a qualitative study. *Journal of the Royal society of Medicine*, 105, 157-165.

SPECHT, JULE, BORIS EGLOFF, AND STEFAN C. SCHMUKLE. 2011. Stability and change of personality across the life course: the impact of age and major life events on mean-level and rank-order stability of the Big Five. *Journal of personality and social psychology* 101.4: 862-882.

SPICKARD JR, A., GABBE, S. G. & CHRISTENSEN, J. F. 2002. Mid-career burnout in generalist and specialist physicians. *Jama*, 288, 1447-1450.

STARKS, H. & BROWN TRINIDAD, S. 2007. Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory. *Qualitative health research*, 17, 1372-1380.

STEINERT, Y. 2013. The “problem” learner: whose problem is it? AMEE Guide No. 76. *Medical teacher*, 35, e1035-e1045.

STEWART, K., MASHRU A, MITCHELL H, JENKYNS, A LAMB N. 2016. Is the junior doctors’ strike justified? Panel verdict *The Guardian*, 26 April 2016.

STRAUSS, A. & CORBIN, J. 1994. Grounded theory methodology. *Handbook of qualitative research*, 17, 273-85.

STRAUSS, A. L. 1967. The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publications Company.

STURGES JE. & HANRAN KJ. 2004. Comparing telephone and face-to-face qualitative interviewing: A research note. *Qualitative Research*, 4:107–118.

TALLIS, R. C. 2006. Doctors in society: medical professionalism in a changing world. *Clinical Medicine*, 6, 7-12.

TAMBLYN, R., ABRAHAMOWICZ, M., BRAILOVSKY, C., GRAND'MAISON, P., LESCOP, J., NORCINI, J., GIRARD, N. & HAGGERTY, J. 1998. Association between licensing examination scores and resource use and quality of care in primary care practice. *Jama*, 280, 989-996.

TAYLOR, C., GRAHAM, J., POTTS, H., CANDY, J., RICHARDS, M. & RAMIREZ, A. 2007. Impact of hospital consultants' poor mental health on patient care. *The British Journal of Psychiatry*, 190, 268-269.

TEESDALE N. 2013. Fragmented Sisters? The Implications of Flexible Working Policies for Professional Women’s Workplace Relationships. *Gender, Work and Organization*, 20 4 doi:10.1111/j.1468-0432.2012.00590.x.

TEUNISSEN, P. W., STAPEL, D. A., VAN DER VLEUTEN, C., SCHERPBIER, A., BOOR, K. & SCHEELE, F. 2009. Who wants feedback? An investigation of the variables influencing residents' feedback-seeking behaviour in relation to night shifts. *Academic medicine*, 84, 910-917.

[\]THE ROYAL LIVERPOOL CHILDREN'S REPORT .2001 Stationary Office Ref: ISBN 9780102775013, HC 12 2000-01
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/250934/0012_ii.pdf \[accessed 23.March.2017\].](#)

THOMAS, J. & HARDEN, A. 2008. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC medical research methodology*, 8, 45.

THOMAS, N. K. 2004. Resident burnout. *JAMA*, 292, 2880-2889.

TIFFIN, P. A., ILLING, J., KASIM, A. S. & MCLACHLAN, J. C. 2014. Annual Review of Competence Progression (ARCP) performance of doctors who passed Professional and Linguistic Assessments Board (PLAB) tests compared with UK medical graduates: national data linkage study. *BMJ*, 348, g2622.

TIFFIN P, PATON L, W, MWANDIGHA, LM, MCLACHLAN JC & ILLING J. 2017. Predicting fitness to practise events in international medical graduates who registered as UK doctors via the Professional and Linguistic Assessments Board (PLAB) system: a national cohort. *BMC Medicine*, 15:66.

UNWIN, E., WOOLF, K., WADLOW, C. & DACRE, & J. 2014. Disciplined doctors: Does the sex of a doctor matter? A cross-sectional study examining the association between a doctor's sex and receiving sanctions against their medical registration. *BMJ open*, 4, e005405.

URQUHART, C., LEHMANN, H. & MYERS, M. D. 2010. Putting the 'theory' back into grounded theory: guidelines for grounded theory studies in information systems. *Information systems journal*, 20, 357-381.

UKFPO, 2016. *Career Destination Reports 2011-15*. Report No 7. www.foundationprogramme.nhs.uk/download.asp?file=Careers_destination_2016.pdf.

VAN DER VLEUTEN, C., 1996 cited from: EPSTEIN R., 2007. Assessment in Medical Education. *The New England Journal of Medicine*. 356 (4): 387-395.

VANCE G, WILLIAMSON A, FREARSON R, O'CONNOR N, DAVISON J, STEELE C, BURFORD B. 2013. Evaluation of an established learning portfolio; 10: 21-26.

VERMA, S., ZULLA, R. & BAERLOCHER, M. O. 2007. 69. International medical graduates (IMGs) needs assessment study: A comparison between current IMG trainees and program directors. *Clinical & Investigative Medicine*, 30, 66-67.

VELOSKI. J., BOEX J. R., GRASBERGER M. J., EVANS. A., WOLFSON., D. B., 2006. Systematic review of the literature on assessment, feedback and physicians' clinical performance. *Medical Teacher*. 28(2): 117-128.

- VINEY R, RICH A, NEEDLEMAN S, WOOLF K. 2017. The Validity of the Annual Review of Competence Progression: a qualitative interview study of the perceptions of junior doctors and their trainers. *Journal of Royal Society of Medicine*; 0(0):1-8. Doi: 10.11770/0141076817690713.
- WAKEFORD, R. 2012. International medical graduates' relative under-performance in the MRCGP AKT and CSA examinations. *Education for Primary Care*, 23, 148-152.
- WALSH, K. 2013. *Oxford textbook of medical education*, Oxford University Press.
- WALSHE, K. & OFFEN, N. 2001. A very public failure: lessons for quality improvement in healthcare organisations from the Bristol Royal Infirmary. *Quality in Health Care*, 10, 250-256.
- WALSHE, K., BOYD, A., BRYCE, M., LUSCOMBE, K., TAZZYMAN, A., TREDINNICK-ROWE, J. & ARCHER, J. 2017. Implementing medical revalidation in the United Kingdom: Findings about organisational changes and impacts from a survey of Responsible Officers. *Journal of the Royal Society of Medicine*, 110, 23-30.
- WARREN, C. A. B. 2002. Qualitative interviewing. *Handbook of interview research: Context and method*, 839101.
- WATLING, C. J. & LINGARD, L. 2012. Grounded theory in medical education research: AMEE Guide No. 70. *Medical teacher*, 34, 850-861.
- WATSON, V., SUSSEX, J., RYAN, M. & TETTEH, E. 2012. Managing poorly performing clinicians: Health care providers' willingness to pay for independent help. *Health policy*, 104, 260-271.
- WAJCMAN J.1998. In: Teesdale N. 2013. Fragmented Sisters? The Implications of Flexible Working Policies for Professional Women's Workplace Relationships. *Gender, Work and Organization*. Vol. 20 No. 4 doi:10.1111/j.1468-0432.2012.00590.x.
- WEST, C. P., HUSCHKA, M. M., NOVOTNY, P. J., SLOAN, J. A., KOLARS, J. C., HABERMANN, T. M. & SHANAFELT, T. D. 2006. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *Jama*, 296, 1071-1078.

- WEST, C. P., SHANAFELT, T. D. & COOK, D. A. 2010. Lack of association between resident doctors' well-being and medical knowledge. *Medical education*, 44, 1224-1231.
- WEST, C. P., SHANAFELT, T. D. & KOLARS, J. C. 2011. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. *Jama*, 306, 952-960.
- WHITE CB, KUMAGAI AK, ROSS PT, FANTONE JC. 2009. A qualitative exploration of how the conflict between the formal and informal curriculum influences student values and behaviors. *Academic Medicine*, 84(5):597-603. doi: 10.1097/ACM.0b013e31819fba36.
- WILLING, C. & STANTON-ROGERS, W. 2007. *The SAGE handbook of qualitative research in psychology*, Sage.
- WOOLF K, POTTS H.W, MCMANUS C. 2011. Ethnicity and academic performance in UK trained doctors and medical students: systematic review and meta-analysis. *BMJ*, 342 doi: <https://doi.org/10.1136/bmj.d901>.
- WOOLF, F K, RICH A, VINEY R, NEEDLEMAN S, GRIFFIN A. 2016. Perceived causes of differential attainment in UK postgraduate medical training: a national qualitative study. *BMJ Open*. 2016;6:e013429.doi:10.1136/bmjopen-2016-013429.
- WOOLF, K., RICH, A., VINEY, R., RIGBY, M. M., NEEDLEMAN, S. & GRIFFIN, A. 2016. Fair Training Pathways for All: Understanding Experiences of Progression. Prepared for the General Medical Council.
- WORKING PARTY OF THE ROYAL COLLEGE OF PHYSICIANS. 2005. Doctors in society. Medical professionalism in a changing world. *Clinical Medicine* (Lond) 2005 Nov-Dec; 5 (6 Suppl1): S5-40. <https://www.ncbi.nlm.nih.gov/pubmed/16408403> [accessed 2.February .2017].
- WYNIA, M K, PAPADAKIS, M A, SULLIVAN, W M, HAFFERTY, F W. 2014. More Than a List of Values and Desired Behaviors: A Foundational Understanding of Medical Professionalism. *Academic Medicine*, 89, (5).
- YAO, D. C. & WRIGHT, S. M. 2001. The challenge of problem residents. *Journal of General Internal Medicine*, 16, 486-492.

YARDLEY, L. & BISHOP, F. 2008. Mixing qualitative and quantitative methods: A pragmatic approach. *The Sage handbook of qualitative research in psychology*, 352-370.

YATES, J. & JAMES, D. 2010. Risk factors at medical school for subsequent professional misconduct: multicentre retrospective case-control study. *BMJ*, 340, c2040.

YEPES-RIOS M, DUDEK N, DUBOYCE R, CURTIS J, ALLARD R J.,VARPIO L. 2016. The failure to fail underperforming trainees in health professions education: A BEME systematic review: BEME Guide No. 42. *Medical Teacher*, 38(11): 1092-1099.

ZWACK J,. AND SCHWEITZER J. 2013. If Every Fifth Physician Is Affected by Burnout, What About the Other Four? Resilience Strategies of Experienced Physicians. *Academic Medicine*, 88(3): 382-9.

ZULLA R, BAERLOCHER MO, VERMA S,. 2008. International Medical Graduates (IMGs) needs assessment study: comparison between IMG trainees and program directors. *BMC Medical Education*. 8(42).

Appendix

Appendix 1: Data abstraction form (Phase 2)

Appendix 2: Ethics form (Phase One)

Appendix 3: Interview schedules (trainer & trainee - Phase Three)

Appendix 4: Information sheets (trainers and trainees - Phase Three)

Appendix 5: Ethics (Phase Three)

Appendix 6: Consent forms (trainers and trainees – Phase Three)

Appendix 7: Good Medical Practice summary of core values

Data Extraction Appendix 1: Evidence matrix to record and make sense of the literature

Author	Country of study (e.g. non-EU, UK) Setting	Methodology used Validity, reliability, generalisability, applicability	Aim	Summary of project	Findings - Indicators/characteristics/Risk factors	Conclusions – why important to consider Support from employers/Interventions	Limitations
<p>ADSHEA D, G. 2010. Becoming a caregiver: attachment theory and poorly performing doctors. <i>Medical education</i>, 44, 125-131.</p> <p>Peer reviewed journal</p>	<p>UK</p>	<p>A review of key texts and previously published studies of attachment styles in caregivers.</p>	<p>Review of a theoretical paradigm (attachment theory)</p> <p>Lit review with reference to 3 main areas: 1) validity and reliability of attachment theory and their measurement, 2) relevance of attachment theory to the provision of health care and the training of healthcare givers, 3) areas for research and interventions</p>	<p>Some types of social relationships in adulthood are highly influenced by childhood attachments between an individual and a primary caregiver. Theory says care giving or care eliciting relationships are attachment relationships characterised by neediness, dependence and vulnerability in one party.</p>	<p>Bio psychosocial issues - insecure attachment, which may only present themselves if internal or external stressors occur. Can lead to vulnerability, higher levels of stress, PTSD.</p>	<p>Many complaints about doctors are related to communication, often when patients and relatives are distressed. If medical students, trainees and doctors learn to be intolerant of their own and others' distress they will come up against professional difficulties.</p>	

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2) GOZU, A., KERN, D. E. & WRIGHT, S. M. 2009. Similarities and differences between international medical graduates and US medical graduates at six Maryland community-based internal medicine residency training programs. <i>Academic Medicine</i> ,	USA (Maryland) Internal medicine residency training programs	Cross-sectional survey study. Comparing IMGs and US residents and interns. Hypothesized that that IMGs would score less favourably than USMG on scales measuring fatigue, stress, self-esteem, and personal growth because of the added difficulties associated with their acculturation into health care.	Identify the similarities and differences between IMGs and US medical graduates working together in residency training program. Identify personal, professional and psychological similarities and differences between IMGs and US medical graduates who work together in internal medicine residency training program.	Interns and residents at 6 internal medicine community based programs, asking about demographics, relocation for residency training, practice experience and career plans, 4 previously validated instruments: Iowa Fatigue Scale, Cohen's Perceived Stress Scale, Rosenberg's Self-Esteem scale and Personal Growth Results: 225 176 (78%) /responded.	IMGs	IMGs and USMGs are different in how they view themselves and their residency training. IMGs in study older, more likely to be married with children, English as second language, less likely to have debt related to medical training. Study hypothesis that the transition of coming to USA would result in lower self-esteem; fatigue, and stress was not proven. Stress not statistically different between the 2 groups. May be that IMGs are more motivated after overcoming the barriers to coming to USA e.g. visa etc.	Used self-assessed reports, not objective methods, although the scales have established validity. Cronbach alphas in study provided evidence of the construct validity of the scales with the study population. Results may not be generalisable because sample only in one area of USA.

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84, 385-390.							
3) RISDON, C., COOK, D. & WILLMS, D. 2000. Gay and lesbian physicians in training: a qualitative study. <i>Canadian Medical Association Journal</i> , 162, 331-334.	Canada. Across 4 cities.	Qualitative - Naturalistic methods (focused on interpreting the discussions about social and cultural factors that influence the medical training experience) used because not testing a hypothesis. Semi-structured interviews, focus groups, email list. 29 participants	Gain an understanding of the experiences of gay and lesbian physicians in training in Canada.	Pilot work carried out (3 interviews and 2 focus groups). Participants recruited through snowball sampling (7 interviews and 5 focus groups), data was also collected by posting messages on the internet on the themes relevant to the study over a 3 month period. 5 domains emerged from the pilots: Career choice, coming out, becoming a dr, the environment, career implications. Inductively analysed	Sexual orientation - Changed the way participants communicated with patients. Discussed feeling suicidal, struggled whether to disclose or not to colleagues & on application forms because of negative implications for future career.	More vulnerable if struggling with their sexual orientation and/or just coming to terms with it – finding a balance between self-protection and self-disclosure. More comfortable with their sexual orientation the less stress they experienced.	Not able to look at people who discounted a career in medicine or dropped out. Longitudinal

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				Total n=29 (16 women, 13 men), inc. 11 pilot participants Age: 20-42. 20 med students, 9 residents from a variety of specialties: family, community, internal medicine & psychiatry.			
4). BEE-HORNG L, HSIU-JUNG C, CHANG-WEI W, YAWEN C, MEI-CHING C. 2010. Stress, personal characteristics and burnout among first postgraduate year residents:	Taiwan Nationwide study	Quantitative – job stress questionnaire (Chinese version of Copenhagen Burnout Inventory, NEO-five Factor Inventory, Positive and negative affectivity was examined by Pearson correlation.	To investigate stress and burnout in first year PG residents and to explore the relationship between stress, personal characteristics and burnout.	Residents were given the questionnaire (n=617) and asked to post back anonymously in the provided envelope. N=555 (90%) completed the questionnaires.	Male residents perceived higher levels of personal stress. The main stressors were sleep deprivation, keeping alert whilst on call, excessive paperwork and admin responsibility, interruption of work by hassles and heavy workload. Fear of making a mistake and fear of litigation. Burnout - Females showed higher levels of burnout (47.83 vs	Residents had high levels of burnout. Association between personality and coping strategy i.e. neuroticism and negative affectivity relating to emotion-focused disengagement; conscientiousness and extraversion relating to problem-focused engagement – suggests personality affects coping strategy selection Enhancing residents' well-being personal characteristics, besides	Over a 6-month period, which may affect perceived stress and burnout measurement, because of increasing adaptive competency.

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a nationwide study in Taiwan. <i>Medical Teacher</i> ; 32:400-407					<p>44.95) especially work-related burnout (51.39 vs 47.72). Personality - Females had greater openness to experience and were not extravert compared with male residents.</p> <p>Coping strategy – Male residents demonstrated using disengagement coping strategy, especially emotion-focused coping strategy more significantly than females. Females favoured emotion-focused engagement strategy.</p> <p>After controlling factors of gender, job stress and work-hour the distal</p>	<p>work-stress, should be explored in order to identify residents at risk of burnout early and to provide timely management.</p> <p>Precautionary care should be taken to avoid residents' excessive or unrealistic self-expectations to prevent burnout.</p>	

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					(distanced) factors: more introvert and conscientious and the proximal factors: propensity of negative affect and problem-forced disengagement coping indicated increasing tendency of burnout.		
5) LAIDLAW, S T., KAUFMAN, D. M., MACLEOD, H., VAN ZANTEN, S., SIMPSON, D. & WRIXON, W. 2006. Relationship of resident characteri	Canada. 1 st and 2 nd year residents	Participation in a videotaped 4 station OSCE assessing a range of communication skills and clinical knowledge. Two trained raters assessed both the clinical and communication skills. Rater reliability.	Assess patient-doctor communication skills competency in first and early second-year residents with the goal of developing a programme to increase their ability in this important clinical skill. Research question: What	78/80 first and second year residents took part. The doctors in the research team developed 4 x 15 min OSCE stations. Incentive of a 2-hour workshop on communication skills was provided. 2 raters used a 5 point Likert scale (1=poor-5=excellent), gave a global score and then scores for exploration of problem, understanding patient's perspective, providing structure to the consultation,	Significant relationships were observed between resident characteristics, attitudes and prior communication skills training, clinical knowledge and communication skills performance. Gender – females scored higher. Language – English as first language scored higher, Age – under 30s scored higher,. Specialty or year of	Findings support characteristics of gender; language and age are predictors of communication competency. High correlation was found between clinical knowledge application, prior communication skills training and communication proficiency. Important to top up prior communication skills and re-emphasise their importance, throughout medical training..	Only one medical school but broad range of specialties, demographics. Therefore, generalisations must be made with caution.

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<p>stics, attitudes, prior training and clinical knowledge to communication skills performance. <i>Medical education</i>, 40, 18-25.</p>			<p>is the relationship between previous communication skills training and communication skills performance?</p>	<p>facilitating the patient's involvement, closing the session. A clinical content checklist, a questionnaire (demographic data), attitude scale (a locally developed validated 12 item) focusing on medical attitudes towards comm skills (5 point Likert scale 1=strongly disagree 5=strongly agree).</p> <p>The inter-rater reliability coefficients for the 2 raters were 0.73 and 0.77 for the CCG and the clinical content checklist.</p>	<p>training did not affect scores.</p> <p>Characteristics found in the clinical content checklist were:</p> <p>Under 30s higher, second year residents scored higher than first.</p> <p>Significant relationships between prior comm skills training and performance were found in: residents with previous comm. Residents with previous CST outperformed those with no previous CST on the clinical content checklist.</p> <p>Significant relationships were</p>	<p>Language fluency was found to be an important factor in communication skills performance. English as a second language esp those who come from a non-English speaking country perform less well on patient communication skills assessments.</p> <p>This study is particularly relevant for IMGs who are more likely to come up against obstacles in patient communications as they are older, male and have English as their 2nd language.</p> <p>Positive relationship between prior comms training and the clinical content checklist scores suggest that comm skills proficiency and clinical knowledge application are closely linked.</p>	

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					found between performance on the clinical content checklist and the global and subscale ratings on the CCG.	People with good comm skills are better able to draw out key clinical info, synthesise it and then convey to the patient relevant clinical knowledge	
6) WEST, C. P., SHANAFELT, T. D. & KOLARS, J. C. 2011. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. <i>Jama</i> ,	US internal medicine residents, 2008-2009.	Survey of national cohort of US internal medicine residents– Participants: 16394 residents, 74.1% of eligible residents in the 2008-2009 academic year (including 7743 US medical graduates and 8571 IMGs).	To more fully understand the prevalence of resident distress across demographics as well as its association with the key training competency of medical knowledge.	National survey assessing Quality of Life (QoL) by a single-item linear analogue self-assessment (LASA) measuring QoL, symptoms of burnout, demographic variables that may be related to well-being, relationships with medical knowledge on standardized testing during training. Hypothesised that distress would be associated with greater educational debt, lower test scores and decreased learning. The Internal Medicine In-Training exam (IM-ITE) multi-choice self-	QoL and satisfaction were lower among residents with educational debt, especially high levels of debt. Symptoms of depersonalisation increased after PGY1. Women and residents in Primary Care reported a greater frequency of both emotional exhaustion and depersonalisation.	PGY1 or PGY2 residents, women, primary care residents and US graduates were more likely to report dissatisfaction with their work-life balance. Greater emotional exhaustion and depersonalisation symptoms were also seen among US med graduates relative to IMGs, although IMGs with high levels of debt were significantly more likely to be burned out.	

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306, 952-960.				assessment annual exam to evaluate progress and identify areas of development. Demographic data is collected. Assessed residents' satisfaction with the balance between personal and professional life on the same 5point Likert scale. Maslach's burnout inventory (MBI): emotional exhaustion was assessed by the question – how often do you feel you have become more callous toward people since you started your residency? In addition, how often do you feel burned out from your work? 7-point Likert scale (never to daily). These items correlated with emotional exhaustion and depersonalisation domains of burnout as			

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				measured by the full MBI.			
7) BUDEBERG-FISCHER, B., KLAGHOFER, R., STAMM, M., SIEGRIST, J. & BUDEBERG, C. 2008. Work stress and reduced health in young physicians: prospective evidence from Swiss residents.	Switzerland and	Prospective cohort study. Med students followed up after graduation in 2 nd , 4 th years of residency. Used effort-reward imbalance at work instrument (ERI) valid for measuring stress at work.	Hypotheses to be tested 1) There's a positive correlation between working hours and stress experience measured by the extrinsic component of ERI and the intrinsic component: over commitment (OVC) 2) persistently high ERI and OVC values have a negative influence on the participants' health and 3) there is an	Sample = 443 residents (233 F, 53.8%; 200 M, 46.2%) 357 (82.6%) have a stable partnership. 103 married (48 F, 55M). 19 (8%) F have children, and 32 (16%) M. Mean age 31.3, Mean working hours 55.1 h. Part of a wider ongoing study of graduates of 3 med schools in German speaking Switzerland. Anonymous study. Sent baseline questionnaire (with a code on) to research group and a postal address to an independent address admin office. Ethics given. Questions asked socio-demographic data, working hours per week, effort-reward imbalance at work questionnaire (ERO-Q) 5 point Likert	Residency training is stressful especially in year 1 and due to long hours.	Some students and residents become overcommitted – find it hard to get away from patient issues and job demands.	

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<i>International archives of occupational and environmental health</i> , 82, 31-38.			interaction effect between the extrinsic part of the model (ERI) and the intrinsic one (OVC) in terms of negative influence on the participants' health outcome	scale measuring extrinsic components of stressful experience at work. 11 items in reward scale.			

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8) WAKEFORD, R. 2012. International medical graduates' relative under-performance in the MRCGP AKT and CSA examinations. <i>Education for Primary Care</i> , 23, 148-152.	UK General Practice	National Recruitment Office Selection data from 3 stages were analysed (anonymously) from one deanery in 2011. Stage 1: eligibility Stage 2: multiple choice question (MCQ) assessment (clinical problem-solving MCQ, SJT, cps (similar to AKT)). Stage 3: Selection Centre 3 simulated patient OSCE stations, a written station.	No clear aim stated	397 applicants with clear selection outcomes (pass fail), who had complete data, who had gone on to stage 3. 49% UK (n=196) 53% IMGs (n=103). Analysis of selection assessments in one deanery. CPS (assessing ability to apply knowledge so similar to AKT) scores = UK 13.3% fail and IMGs 45.6% fail. So can predict later performance on AKT. Less plausible to predict performance in CSA because the 3 OSCE stations won't match those 13 OSCE stations in CSA exam and are judged by highly trained examiners and follow a complex blueprint of assessment. The reliability of the	IMGs perform worse on selection tests than UK. Same reflections found in differences between the 2 groups in the MRCGP	IMGs fail MRCGP (both AKT and CSA) exams at a higher rate than UK. First time takers of the Applied knowledge Test and the Clinical Skills Assessment fail rates for AKT – UK =13.4% IMGs = 45.6%, CSA-UK=8.2% IMG =59.2%. Could be discrimination or difference in ability when selected. A trained and effective GP does not emerge simply because of 38.5 hours a week training and clinical experience over 3 years towards a set of curricular competencies – this would be a simplistic analysis of professional development. GPs need to be linguistically adept, have good social skills and lots of cultural capital. UK graduates have gone through the	Only one deanery and over one year. However ties in with findings from MRGP assessments.

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				<p>Selection centre (SC) on the 4(alpha =0.80) components on this data is poor compared to that of SJT in 2010 data and the CPS (alpha =0.84) in 2010. Aggregated scores for SJT, CPS and SC were 8.2% UK graduates and 59.2% of IMGs failed.</p>		<p>UK training system, which feeds into GP training system. Therefore, there are going to be differences because IMGs have gone through different training systems and had different experiences culturally, linguistically educationally so why would they be expected to achieve same exam results in same time as UK graduates? Unrealistic recruitment targets for deaneries are imposed which do not take into account differences in applicants. Provide all trainees with equivalent and balanced educational experience in practice, rather than those trainees who most need support and benefit of education being assigned to the</p>	

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						<p>least popular schemes. Provide all new IMGs with an intro to life and medicine in the UK. Review of the standard in PLAB assessments to see if they are accurately at the level they say ie are they disadvantaging IMGs from the start as not up to standard initially.</p>	

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9) HYMAN, S. A., MICHAEL S, D. R., BERRY, J. M., SCHILDCROUT, J. S., MERCALDO, N. D. & WEINGER, M. B. 2011. Risk of Burnout in Perioperative Clinicians. A Survey Study and Literature Review. <i>The Journal of the American Society of</i>	USA One perioperative unit	On line survey modified version of Maslach Burnout Inventory – Human Services Survey, social support and personal and coping survey. A global score was calculated. Global values were associated with risk of burnout and these were separately regressed on role, age and sex. Ethics received. Data anonymous. Participants were not told the purpose of the study so as not to introduce bias. The changes to the MBI survey were checked for	To evaluate the risk of burnout in all medical personnel on one perioperative unit. To identify risk of job burnout, and so delineate factors that might improve job satisfaction and/or aid in coping with job stress. factors associated Assess the magnitude of emotional, mental and physical exhaustion among employees in a busy	250 questionnaires sent- 145 responses: 46.2% physicians (22.8% residents, 43.4% nurses or nurse anaesthetics, 10.3% other personnel. Adjusting for age and sex (95%CI) global score (1.12 [0.43-1.82]) residents scored higher on emotional exhaustion 1.54 [0.44-2.60] and depersonalisation (1.09 [0.23-1.95]) Modified the MBI by changing time respondents looked back over from a year to 2-4 weeks and the scales from 0-6 to 0-9. 8 questions re worded slightly to make it more applicable, other questions intertwined and so were not in the original order. Respondents' mostly male physicians (64%)	Perioperative clinicians may be at particular risk of burnout because of increasing production pressure and staff shortages, care of extremely ill patients and work with extreme responsibility. Younger adults found to be most at risk. Burnout can increase due to debt and malpractice risk. Personality traits may include avoidant coping style and thinking someone else is to blame. Burnout has been associated with substance misuse, mental health issues, early retirement, physical	Burnout is contagious. Physicians, especially residents, had the highest global burnout scores, implying that they had a greater risk of burnout. Increasing overall health, increasing support and improving work satisfaction may decrease burnout. Important to identify those at risk of burnout as it can contribute to worsening job performance – absenteeism, job turnover, decreased productivity and negative effect on co-workers. Health issues – substance abuse and mental and physical problems. Maintaining good health along with the availability of family and friends contributes	

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<i>Anaesthesiologists</i> , 114, 194-204.		reliability using cronbachs alpha. For emotional exhaustion (0.88) depersonalisation (0.77) and personal accomplishment (0.82) suggests the modifications measure what they are supposed to.	perioperative area.	and female nurses (73%). Median age 45. ID code used to follow up non-respondents.	illness and presenteeism Residents' higher burnout than other clinical roles on emotional exhaustion and depersonalisation Age had an impact on depersonalisation and low personal accomplishment. At risk personality characteristics are low hardiness (without involvement in daily activities, sense of control over events and openness to change), poor self-esteem and the 'victim mentality'. At risk job attitude is when people have unrealistic expectations for the job.	to better personal coping strategies	

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10) MACLELLAN, AM. 2010. Examination outcomes for international medical graduates pursuing or completing family medicine residency training in Quebec. <i>Canadian Family Physician</i> , 56: 912-919	Canada. Family medicine	Retrospective study	To review the success of IMGs who are pursuing or have completed a Quebec residency-training program and examinations.	Retrospectively reviewed IMGs' success rates on the pre-residency medical clinical sciences written exam and OSCE and on the post-residency exam in Family medicine. All IMGs, Canadian and American graduates taking exams between 2001 & 2008. Results – Success rates remained below 50% for IMGs on pre-residency clinical exams. Average success rate on certification exams: 56% for IMGs, 93.5% for Canadian and American graduates.	IMGs	Despite pre-residency competency screening and in-program orientation and support, many IMGs are failing their certification exam. Could be due to how and when IMGs transfer their knowledge and integrate it with clinical decision-making, or to the diversity of IMGs as a group and the variability of their undergrad medical education. IMGs did better on written exams than clinical examinations.	No information on IMGs who pass their exams. The study did not reveal predictors of success.
11) PAPADAKIS, M.	USA.	Retrospective cohort study of internal medicine	To determine whether performance	All physicians who entered internal medicine residency	2 performance measures independently	Poor performance on behavioural and cognitive measures	Retrospective, Some diplomats

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A., ARNOLD, G. K., BLANK, L. L., HOLMBOE, E. S. & LIPNER, R. S. 2008. Performance during internal medicine residency training and subsequent disciplinary action by state licensing boards. <i>Annals of Internal Medicine</i> ,	State licensing board disciplinary actions against internal medicine physicians from 1990 to 2006.	residents. The reliability and validity of the ratings used correlate with certification examination scores and physician peer ratings. Clinical competence ratings from program directors correlate with physician peer ratings (r=0.25; P<0.010).	measures during residency predict the likelihood of future disciplinary actions against practising internists.	training between 1990 & 2000 (N=66171) and subsequently became diplomats. Used predictor variables from longitudinal data kept by ABIM to measure residents' performance. Obtained demographic data inc. sub-specialty. 6 components were present throughout: medical interviewing, physical examination skills, procedural skills, medical knowledge, professionalism and overall clinical competence. Best and worst performance (9-point scale – unsatisfactory-superior). Compared characteristics of internal medicine diplomats with and without disciplinary actions using chi-square	predicted disciplinary by action rather than demographic characteristics. Low professionalism rating on the Residents Annual evolution. Examinees who did not pass internal medicine certification exams on initial attempt received lower ratings of clinical competence on average than other examinees. Those who were disciplined had lower ratings on their ABIM residents evaluation summary, more unsuccessful attempts and lower	during residency are associated with higher risk for licensing board actions against practising physicians at every point on a performance continuum. Better professionalism ratings during residency were associated with less risk of subsequent disciplinary actions. Better performance on the internal medicine certificate exam independently reduced the likelihood for disciplinary action for USA/Canadian graduates (0.7[CI, 0.6 to 0.7] and IMGs 0.9 [CI, 0.8 to 1.0]. There was an interaction between performance on internal medicine certification exam and graduation from overseas school; for every SD unit of increase in performance	may have practiced outside USA.

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148, 869-876.				tests. In addition, Kendall-Tau tests. Results: Most disciplinary actions were for unprofessional behaviour (83.3%), for violations directly related to substandard quality of care e.g. inappropriate or excessive prescribing (31.2%).	scores on the internal medicine certification exam and less likely to be recertified.	scale, IMGs had 9% reduction in subsequent disciplinary action, US/Canadian graduates had 35% reduction. Better scores correlate with fewer disciplinary actions.	
12) ESMAIL, A. & ROBERT S, C. 2013. Academic performance of ethnic minority candidates and discrimination in the MRCGP examinations	UK GP.	Analysis of data provided by RCGP and GMC.	To determine the difference in failure rates in the postgraduate examination of the Royal College of GPs (MRCGP) by ethnic or national background, and to identify factors associated with pass rates in the clinical skills	5095 candidates sitting the applied knowledge test (AKT) and clinical skills assessment components of the MRCGP exam between 2010 and 2012. A further analysis carried out on IMGs who had sat the IELTS and PLAB exams. Results after controlling for age, sex, and performance in the AKT, significant differences persisted between white UK graduates and other candidate groups. in the	IMGs - significant differences persisted between white UK graduates and other candidate groups BME graduates trained in the UK were more likely to fail the clinical skills assessment at first attempt than their white UK colleagues. BME candidates who trained abroad were also more likely to fail the	Subjective bias due to racial discrimination in the clinical skills assessment may be a cause of failure for UK trained candidates and IMGs.	

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between 2010 and 2012: analysis of data. <i>BMJ</i> , 347, f5662. Hand search journal article.			assessment component of the examination.	UK were more likely to fail the clinical skills assessment at their attempt than their white UK colleagues were. Black and minority ethnic candidates who trained abroad were also more likely to fail the clinical skills assessment than white UK candidates were. For candidates not trained in the UK, black or minority ethnic candidates were more likely to fail than white candidates were, but this difference was no longer significant after controlling for scores in the applied knowledge test, IELTS and PLAB exams.	clinical skills assessment than white UK candidates. For candidates not trained in the UK, BME candidates were more likely to fail than white candidates, but this difference was no longer significant after controlling for scores in the AKT, IELTS and PLAB exams.		
13) MAHAJAN, J. & STARK, P. 2007. Barriers to	UK Paediatrics.	Qualitative (focus groups & semi-structured interviews). Grounded theory. Used pragmatic	To explore the factors that may influence the progress of doctors who come from the	Senior HOs who had obtained their medical qualifications in the Indian subcontinent and doing training in paediatrics n=16	IMGs who are not socialised into UK culture and NHS display difficulties with team work, language (local &	Stress of immigration and acculturation barriers if not supported and considered could	Convenience sampling bias as only getting those participants who are free.

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education of overseas doctors in paediatrics: a qualitative study in South Yorkshire. <i>Archives of disease in childhood</i> , 92, 219-223.		<p>approach of non-probability convenience sampling.</p> <p>Ethics obtained. Triangulation with focus groups and interviews. Research diary used for transparency and reproducibility.</p>	Indian subcontinent to train in paediatrics in the UK.	identified. 12 participated (9 in focus group, 3 semi-structured interviews).	<p>colloquial), sensitive issues, difficulties preparing for exams (not having a study group i.e. studying in isolation, so demotivating), shift work and moving jobs every 6 months, different disease patterns.</p> <p>Taking clinical exam too soon after starting work in NHS contributed to exam failure. Women felt they had to juggle family, work and exam prep. Lack of childcare was seen as a barrier. (sociocultural: men's jobs take preference)</p>	<p>lead to low self-esteem, barriers to education.</p> <p>Mentoring, more info, specialty-specific workshops, induction programmes.</p>	

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					<p>Job hunting: applying for lots of jobs is demotivating, self-esteem low. Applying for visa every 6 months humiliating and time-consuming.</p> <p>Social and cultural: not knowing what to wear socially or at work</p> <p>Women.</p> <p>Fear of losing face made them inclined to hide or not accept mistakes – hard to learn from them. Working relationships with multidisciplinary teams meant they felt they were being judged and watched so had to prove themselves</p>		

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					and didn't trust nurses. Many supervisors didn't have understanding of their specific problems, British International Drs Association (BIDA) support lacking		
14) YAO, D. C. & WRIGHT, S. M. 2001. The challenge of problem residents. <i>Journal of General Internal Medicine</i> , 16, 486-492.	USA Internal Medicine Residency training.	Qualitative (workshop and interviews) and review of literature.	No clear aim but the authors' state that the study attempts to be evidence-based, wherever possible, highlighting what is known.	Literature review (59 articles) Article focuses on identification, underlying causes, management and prevention. Found that problem residents usually manifest difficulties in one or more of the ABIM's 7 areas of clinical competency: clinical judgement, medical knowledge, clinical skills, humanistic qualities, professional attitudes and behaviour, medical care, and moral and ethical behaviour. Problem resident is the	Cultural differences in philosophy and expectations, language difficulties experienced by some IMG, gender issues (e.g. pregnancy) need to be considered – gender and racial discrimination may be occurring so worth looking into. 5 underlying causes to poor performance behaviours related to e.g. 1) professionalism, 2) medical conditions	Problem residents threaten integrity of training programme and negatively influence the residency training of other trainees. Better understanding of issues related to problem residents, supporting residency program directors, medical educators and residents themselves. Frequent feedback sessions and an assigned mentor were seen as the two most helpful interventions.	Most studies reviewed were residents self-reporting, mostly focusing on residents as the problem but it may be external or organisation factors e.g. training culture which may be demanding and stressful.

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				<p>term used. The ABIM through site-visits estimate 8-15% have serious problems.</p> <p>Workshops with chief residents on problem residents organised by Association of Programme Directors in Internal Medicine – systematic approach to the problem resident. In addition, 6 interviews with internal medicine program directors, looking at prevalence, identification, management and outcomes of problem residents. Found problem residents had insufficient knowledge (48%), poor clinical judgement (44%), inefficient use of time (44%). Discovered via observation (82%), critical incident (59%). Chief residents (84%)</p>	<p>inc. psychiatric illnesses– s, 3) difficulty coping with stress, 4) substance abuse, 5) cognitive issues e.g. inadequate knowledge base and learning disabilities (no evidence).</p>		

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				and program directors (74%) most likely to identify the problem. Residents come forward (2%).			
15) YATES, J. & JAMES, D. 2010. Risk factors at medical school for subsequent professional misconduct: multicentre retrospective case-control study.	UK	GMC data and records from medical school. Matching case control cases. Anonymised student files obtained by their original medical school.	To determine whether there are risk factors in a doctor's time at medical school associated with subsequent professional misconduct.	59 doctors who had graduated from the 8 medical schools 1958-97 and had a proven serious professional misconduct in GMC cases 1999-2004. 236 controls (4 for each case) were selected by systematic sampling from matching graduation cohorts. Case control status was revealed by the GMC after completion of data entry. Potential risk factors chosen cases = pre-admission characteristics, and progress through the course.	Results: Univariate conditional logistic regression analysis used (odds ratio 9.80, 95% confidence interval 2.43 to 39.44, P=0.001) lower social class (4.28, 1.52 to 12.09, P=0.006), academic difficulties during medical course esp in early years e.g. failure of early pre-clinical exams, resitting part of the course, lower overall performance than their peers (5.47, 2.17 to 13.79, P<0.001). More likely to graduate late due	Longitudinal tracking of doctors' careers from med school, to PG training to Trusts would improve care for patients by supporting drs who had been identified as being less successful or having attitudinal problems. Could develop a standardised communication system from medical school through Deaneries to employing Trusts.	:

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<i>BMJ</i> , 340, c2040.				Misconduct included 23 cases (38%) clinical competence, mostly other aspects of professionalism and personal behaviour = dishonesty and improper relationships.	to resitting final clinical exam or redoing a year. No evidence because of health or personal reason. Cases less likely to have achieved consultant status. Specialties were not classified as numbers were too small and there was too much diversification.		
16) Zullar, Baerlocher MO, Verma S.(2008) International Medical Graduates (IMGs) needs assessment study: comparison	Toronto, Canada.	Survey - 5 point Likert scale (1 least important, 5 most important), extent to which specific issues were challenging to IMGs and whether an orientation programme should be started prior to residency. Ethics approval.	Explore the challenges IMGs encounter from the perspective of trainees and their Program Directors.	2 surveys were developed for IMGs and Programme Directors, both covered 3 main areas identified by the expert panel that helped to devise the survey: Clinical Knowledge and skills, Communication and Working Relations, and Macro Issues (areas of concern affecting institutional,	Differing perceptions of what is challenging and difficult between IMGs and Programme Directors. Mean scores for basic clinical skills differed between IMGs and Programme Directors – may be related to the variability of training IMGs possess prior to entering the Canadian system. Programme	IMGs and Programme Directors differ in perspectives of what is challenging entering residency training. IMGs starting at a different starting point to Canadian graduates. Received different training and amount of experience varies; this may prove challenging for supervisors. IMGs may be older, different life stages, responsible	

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on between IMG trainees and program directors. BMC Medical Education . 8(42).				environmental or cultural experience and performance). Between 2005 and 2006 118 IMGs enrolled in all residency programmes, 73 residency programme directors were identified as potential participants. Emails were sent out to residents, included link to survey. To increase response rate residents were asked to include their email address to win an ipod, with 3 follow up emails. Emails were sent out to Programme Directors with the survey attached and a link to the survey if they preferred. 2 follow up emails.	directors may be more concerned with communication and working relations and inter-professionalism as Programme Directors' mean scores were higher than IMGs themselves. IMGs felt learning systems and values of the Canadian healthcare system was important in addition to their training curriculum whereas Programme Directors may have felt that issues are not challenging. Programme Directors were more interested with areas of performance indicators in communication, collaboration and basic clinical skills.	for bringing up a family, financial issues, loneliness, social isolation, decrease in social status, which could lower self-esteem, worries about visas/migration.	

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				<p>IMG response rate 74 % (87 out of 118) and Programme Director 62% (45 out of 73).</p> <p>Results Looked at mean scores. IMGs' knowledge of Canadian healthcare system and knowledge of Pharmaceuticals and hospital formularies were high (3.69) (v important) The lowest mean score (least important) basic clinical skills (2.78) working relations with other residents (3.05) and other healthcare students and allied healthcare professions (3.13). In contrast, highest mean score from Programme Directors was communication with patients, team members (4.33) and</p>	<p>Each group responded to the survey based on their needs and anxieties.</p>		

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				basic clinical skills (4.28). The lowest mean scores were knowledge of hospital systems (3.19), Specialty-specific clinical knowledge (3.37) and specialty specific clinical skills (3.46). Macro issues were lower among Programme Directors than IMGs. Mean scores for Programme Directors were higher relative to IMG trainees for knowledge and skills and communication and working relations.			
17) BRYSON, E. O. 2008. Should anaesthesia residents with a history of	USA Anaesthesia training	Quantitative - Survey. Ethics received.	To determine the experience, attitudes and opinions of program directors regarding the reintroduction of residents in	Survey was sent via mail to 131 program directors with a stamped-addressed envelope to return anonymously. 91 (69%) returned, representing experience with 11,293 residents over the 10 year period July 1997 to	Multiple factors such as family history, presence of co-existing psychiatric conditions, and the strength of the residents' support system at home and work must be		Depends on recall of respondents.

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<p>substance abuse be allowed to continue training in clinical anaesthesia? The results of a survey of anaesthesia residency program directors. <i>Journal of clinical anaesthesia</i>, 21, 508-513.</p>			<p>recovery from substance abuse into the clinical practice of anaesthesiology.</p>	<p>June 2007. 56 (62%) reported they'd had experience with at least one resident requiring treatment for substance abuse. Residents allowed to continue after treatment 29% relapse (10% relapse meant death). 43% of Programme Directors felt residents in recovery should be allowed to attempt to re-enter residency training, 30% felt they should not.</p>	<p>considered before a resident can be allowed back on to a programme. Fentanyl was the most common drug of choice due to its pharmacokinetic profile that allows the user to continue to function at work. 25% of residents had at least one relapse after their initial treatment. Factors identified as being associated with an increased risk of relapse included a family history of substance use disorder, the use of a major opioid such as fentanyl and the presence of a coexisting psychiatric disorder.</p>		

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18) ATRI, A., MATORIN, A. & RUIZ, P. 2011. Integration of international medical graduates in US psychiatry : the role of acculturation and social support. <i>Academic Psychiatry</i> , 35, 21-26.	US Psychiatric residency training	Quantitative – survey	Whether social support and acculturation could predict the mental health of IMGs pursuing psychiatric residencies in the USA.	55 item online survey which combined 3 validated instruments; Kessler psychological distress scale (measures mental health, 6 point Likert scale), Stephenson's Multi-group Acculturation Scale (32 item Likert scale) and interpersonal support evaluation list (multidimensional inventory evaluates perceived social support resources on health and wellbeing).	Acculturation, social support and PG training year were significant predictors of mental health. The higher the emotional & social support the higher the mental health. No studies found a link between acculturation, social support and mental health. Found dominant society immersion was a mental health predictor so if an IMG had immersed themselves in US culture. PG training year was a predictor of mental health maybe because as they progress through	Some social support and acculturation of IMGs (especially for junior trainees). Acculturation could be improved by language training and courses in American history, culture, customs; social support could be expanded by mentoring relationships. Interventions to improve social support and acculturation could help improve IMGs' academic performance.	Limited or insufficient evidence of association. Results limited by self-selection bias and participant recall. Small sample size, convenience sampling and failure to exclude residents who have current history of mental illness or experienced significant life events during residency to generalisability.

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					training they get used to training and social networks and acculturation takes place and develops with time.		
19) THOMAS, N. K. 2004. Resident burnout. <i>JAMA</i> , 292, 2880-2889.	USA	Literature Review	What is the level of clinically significant burnout among residents? What factors are associated with development of burnout? What are the health performance consequences for residents with burnout and their patients? What coping resource may help residents with burnout?	Databases between 1983 and 2004 were searched for peer-reviewed articles in MEDLINE and PubMed. (English language), primary data on burnout, professionalism, emotional exhaustion, cynicism, depersonalisation and internship and residency, house-staff, intern, resident or physicians in training. Reference lists were checked for relevant articles. 67 articles retrieved and 15 articles identified as meeting the exclusion and inclusion criteria.	Residents across specialties internationally experience burnout. Burnout can also be linked with personality certain types, with work-home balance and difficult interactions.	Articles suggest burnout high amongst residents and may be associated with depression and problematic patient care.	Small sample sizes - often cannot be generalisable, cross sectional studies. Resident burnout demographic factors: limited in studies and may not be reliably associated with burnout among residents.

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				Most small cross sectional surveys. 7 internal medicine articles.			
20) Broquet K, Punwani M. (2012) Helping International Medical Graduates Engage in Effective Feedback . Academic Psychiatry.; 36:4. BROQUET, K. E. & PUNWAN I, M. 2012. Helping international medical	USA	Literature review and qualitative	What are barriers to receiving feedback for IMGs?	Literature relevant to the topic was reviewed, interviews with 5 IMGs, and narrative accounts of training in US and Canada.	IMGs often have limited experience of feedback and may view it as criticism. Teachers could view a lack of self-assessment as a reluctance to learn or self-reflect. IMGs often have high anxiety levels and feel insecure about being terminated from the training programme.	Point out clearly that feedback is taking place. Be clear on the differences between formative and summative feedback. Good for IMG to learn to paraphrase any feedback to make sure they have understood and interpreted what is being said. Power differences are often important to IMGs and Programme Directors giving feedback are often perceived as more important. These all create barriers and need addressing for effective learning.	Small numbers interviewed.

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graduates engage in effective feedback. <i>Academic Psychiatry</i> , 36, 282-287.							
21) SARGENT, M. C., SOTILE, W., SOTILE, M. O., RUBASH, H. & BARRACK, R. L. 2004. Stress and coping among orthopaedic surgery residents and	USA Orthopaedic surgery residents and faculty	Quantitative -21 orthopaedic residents & 25 full time faculty members completed a 102 question anonymous questionnaire. Included 3 validated tools; MBI, General Health Questionnaire, and the revised Dyadic Adjustment Scale. Demographic and background, stress reaction &	To determine the quality of life of orthopaedic residents and faculty and to identify the risk factors for decompensation.	Devising a tool to identify risk factors of residents so that these can be pre-empted.	Residency stressors: financial pressures, heavy workload and on-call schedules, lack of free time, daily micro-stressors, and harassment, sleep deprivation. Risk factors: Personal psychiatric history, family psychiatric history, inadequate support training, female gender (conflicting research but higher levels of stress).	QoL lower in residents than faculty. Residents reported more burnout with high levels of emotional exhaustion and depersonalisation and an average level of personal achievement. Faculty had a low level of life balance, discord with faculty, nursing staff and senior residents, debt and work related stress, burnout. Resident burnout and psychiatric morbidity correlated with weekly work hours,	Small sample - so difficult to generalise.

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faculty. <i>J Bone Joint Surg Am</i> , 86, 1579-1586.		management & work-life balance. Bivariate relationships were used. Descriptive stats, pairwise correlations, simple t tests, and Pearson & nonparametric Spearman correlations were calculated.					
22) CAMPBELL, J., PROCHAZKA, A. V., YAMASHITA, T. & GOPAL, R. 2010. Predictors of persistent burnout in internal medicine	University of Colorado, USA. Internal medicine residents	Longitudinal study	Determine whether burnout in internal medicine residents is persistent. What factors predispose residents to persistent burnout?	Ethics approval obtained. A survey was mailed to 179 residents each May between 2003 and 2008. The survey included Maslach Burnout Inventory. Burned out residents were defined as those that had high scores over all 3 years of training in emotional exhaustion or depersonalisation.	Persistent burnout was more likely to occur in men (OR=3.31, $P < .01$) and associated as screening positive for depression as an intern (OR=4.4, $P < .002$) 48% (86) response rate over the 3 years. 67 (78%) of residents were burned out at least once over those 3	Burnout can persist once a resident is burned out. Men and residents who screened positive for depression as interns are at a high risk of persistent burnout. Once progression through training takes place, confidence levels increase in clinical and procedural skills, and there are less hours worked, their emotional exhaustion decreases.	Only in one Specialty in one organisation so unsure whether generalisable. Restructuring of residency training and hours worked half way through the study (yr2). Low

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residents: a prospective cohort study. <i>Academic Medicine</i> , 85, 1630-1634.					years. 58 (67%) during their internship (FP year) 58 (67%) during their 2 nd year and 50 (58%) during their 3 rd year ($P < .08$) of the 58 interns who were burned out 42(72%) continued to be burned out through the 3 years of training. (OR=3.31, $P < .01$) and associated as screening positive for depression as an intern (OR=4.4, $P < .002$). All residents completed their training within time	Interventions during internship year could help reduce burnout and the potential long term affects.	response rate (48% returned survey for all 3 years). so could bias the results. Self-assessment but using a validated score. Other stressors may affect burnout such as financial, personality traits or relationship strains but these were unknown.



Shaped by the past, creating the future

Rebecca Maier
Research, Development and Trials Manager
Chair, School of Medicine, Pharmacy and Health Ethics Sub- Committee

Charlotte Rothwell
Centre for Medical Education Research
School of Medicine, Pharmacy and Health
Durham University

13th September 2013

Dear Charlotte,

Re: Ethics Application ESC2/2013/12
The impact on the future careers of trainee doctors who extend their period of training?
Scoping Study

Thank you for sending the above application to the School of Medicine, Pharmacy and Health Ethics Sub-Committee, and for attending the meeting where this was discussed. The committee agreed that there were no major ethical issues with your proposal and requested some minor amendments. I have reviewed these amendments today and I am satisfied that all of the points raised by the committee have been addressed. I am therefore pleased to confirm Durham University ethical approval for the study.

This approval is given on the following basis:

- As custodian of the data generated for this study you will be responsible for ensuring it is maintained and destroyed as outlined in this proposal and in keeping with the Data Protection Act.
- If you make any amendments to your study, these must be approved by the committee prior to implementation.
- The confidentiality agreement must be signed prior to you starting the scoping work, and a copy should be forwarded to the committee for our records.

Please do not hesitate to contact me should you have any questions. Good luck, I hope that the study goes well.

With best wishes,

Rebecca Maier

Interview Questions for Specialty Trainees

Thank you very much for agreeing to take part in this research. I am interested in your perspective as a trainee who has received targeted training or and an extended period of training, to explore the factors that led to this and support you received during the process. The interview should take no more than 30/40 minutes and with your permission I would like to tape record the interview for ease of analysis. I will be asking some questions and there is no right or wrong answer, I am interested in your experiences. The interviews will remain wholly confidential to the researcher and any data will be aggregated and anonymised in the writing up and reporting of the data. Are you ok with that? Once I have turned on the recording device I will ask for confirmation of your consent to record. Do you have any questions before we start the interview?

I am just turning on the recorder now... Can I just confirm that you are ok with me recording this interview? Thank you.

Lead in question:

1. Firstly, would you be able to tell me a little bit about yourself? - what stage are you in your training?
2. Which Specialty area you are in?
3. Are you full time or part time?
4. Do you mind me asking if you have any dependants at home?
5. Do you have or had any close family that works in the medical profession?

Learning Environment

1. What are your thoughts about the portfolio system?
2. Was it explained to you fully when you started your training? Prompts
3. In what way do you think the portfolio system demonstrates your learning and knowledge? (prompts: Is it a good way or could things be improved? In what way?)
4. How do you find the workload and training ratio?

Now I am going to move on to talk about ARCPs and targeted and extended training outcomes.

Targeted/Extended training

1. In your own words can you tell me why you have been given targeted and/or extended training? *(use the pre-questionnaire information to see what outcome they had received)*
2. Could you describe the events leading up to you receiving targeted/extended training?
3. What contributed to this?
4. What was going on in your life/work at the time?
5. How did this make you feel?
6. Do you think that it has had an impact on you? In what way/s?
(Prompts training, career, health, home, motivation)

Support and the organisation

6. What and/or who was the most helpful support during this time? Continue to be?
(Prompts: Can you describe this support?)
7. Did you feel you received enough support during your targeted or extended training?
(was there any other support that you would have liked?)
8. Do you feel that your TPD, Medical Director, School director or Educational supervisor have adequate training and time to deal with your needs and provide support?
9. Is there anything that could be put in place earlier on in their training?
10. Was there anything else that could have been done differently?

Closing questions

1. Following on from your experiences is there any advice you would like to offer to other trainees?
2. Is there anything else you think I should know or that we have not covered and that you would like to discuss in relation to this topic?

Thank you very much for your time

Example of Interview Schedule for TPDs, Medical Directors, Educational Supervisors

Thank you very much for agreeing to take part in this research I am interested in your experiences with trainees (but please do not identify the trainee/s) and your perspective on which trainees are receiving adverse ARCP/RITA outcomes, the possible reasons and what could be put in place to help support these trainees who require extended periods of training. The interview should take no more than 20 minutes and with your permission we would like to tape record the interview for ease of analysis. The interviews will remain wholly confidential to the researcher and any data will be aggregated and anonymised in the writing up and reporting of the data. Are you ok with that? Once I have turned on the recording device I will ask for confirmation of your consent to record. Do you have any questions before we start the interview?

I am just turning on the recorder now... Can I just confirm that you are ok with me recording this interview? Thank you.

Background Questions

1. Would you be able to tell me a little bit about your background working with trainees with difficulties? For example, your role as an educator
2. What do you think are the issues surrounding doctors with performance issues?
3. Are issues picked up in a timely way?
(Prompts: What could be done to improve this? What helps with this?)

Learning Environment and assessments

1. What are your thoughts about the portfolio system?
 - 1b In what way do you think the portfolio system demonstrates learning and knowledge?
(Prompts: Is it a good way or could things be improved? In what way?)
2. What are your thoughts about ARCPs?

Targeted training

4. In your opinion those trainees who receive targeted or extended training – do you feel that this helps them become a better doctor i.e. are they receiving remediation and targeted training in an area that they may be struggling in?
5. Is there always awareness/insight from the trainee to change?

Prompt How does this effect feedback and supervision?

6. Do you think that receiving targeted/extended training affects a trainee's future career?
7. Do you think the system and process supports a trainee?
(Prompts If no to no 7 what else could have been put in place ?)
8. Do you as a TPD, Medical Director, School Director, and Educational Supervisor feel that you have adequate training and time to deal with doctors with differing training needs?

Are there any other points or areas you feel are relevant but we have not discussed in the interview?

Thank you for your time



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Appendix 4: Trainee Interview Participant Information Sheet

I would like to invite you to take part in a telephone interview as part of my research study. Before you decide, we would like you to understand why the research is being done and what it would involve for you.

Please read this sheet carefully. If you have any questions, there are contact details at the end of this sheet. Talk to others about the study if you wish.

What is the purpose of the study?

The research will look at whether some trainees are more likely than others to experience difficulties during their training. In doing so the research hopes to understand more about these issues and identify what can be done to help support trainees and trainers.

Why have I been invited?

All Specialty trainees within the North East LETB (formerly the Northern Deanery) who have had targeted or extended training through ARCP or RITA outcomes have been asked to take part in this interview.

All Training Programme Directors, Directors of School and Managers of Schools and Educational Supervisors in the North East Local Education Board (formerly the Northern Deanery) are also being invited to take part in the interviews.

Do I have to take part?

Participation is entirely voluntary. If you agree to take part now, you can still change your mind about participation later.

What am I being asked to do?

You are being asked to take part in a short telephone interview (approximately 30 minutes) to discuss your views on targeted or extended periods of training and what support can be put in place earlier.

Before the interview starts you will be asked if you are happy to consent to the interview being recorded and later transcribed. This is to support easier analysis.

Data Protection

The recording will be confidentially transcribed, and will be erased following transcription. In addition all identifiable data will be removed during the transcribing of the data. In addition all data will be aggregated during the reporting and dissemination of the findings making identification of participants even more secure.

What are the possible disadvantages and risks of taking part?

It is possible that the discussion may address issues you are uncomfortable with. Remember you do not have to say anything you may be uncomfortable with. If there are any issues raised that you would like to speak to someone about, there are contact details at the end of this form.

What are the possible benefits of taking part?

Your contribution may help us to understand more about trainees who are having targeted and or extend training and if there are any ways to recognise and introduce support mechanisms earlier on. This research aims to improve the experience of trainees, trainers, the health team and patients.

Will my taking part in this study be kept confidential?

Yes. We will follow ethical practice and all information about you will be handled in confidence.

The recording of the telephone interview will be anonymised during transcription, and the transcript will not include your name. All transcripts will be stored securely on the University's secure network, to which only I and one or two members of the Centre for Medical Education Research (my supervisors) will have access.

Quotes from the interviews may be used in reports and papers, but will be aggregated and will not include any details which could identify anyone.

What will happen if I don't want to carry on with the study or am unable to?

Once the interview is completed, you will not be expected to have anything more to do with the study.

If you decide you have said something that you would prefer not to be used as data then this would be removed.

Who is organising and funding the research?

This phase of the research is being part funded by the University and earlier work on this topic was funded by the Health Education North East (formerly the Northern Deanery). However, HENE will have no access to data and will only receive summary reports about the data.

The research is being organised and managed by the Centre for Medical Education Research, Durham University.

Who has reviewed the study?

This research has been reviewed within the Durham University School of Medicine Pharmacy and Health ethics committee.

Further information and contact details

If you have any questions or concerns about any aspect of this study, please feel free to contact the lead researcher who will try to answer your questions:

Mrs Charlotte Rothwell
Research Fellow
Centre for Medical Education Research
Durham University
Burdon House
Leazes Road
Durham
DH1 1TA

email. c.r.rothwell@durham.ac.uk

Or
Professor Jan Illing (PhD supervisor)
Centre for Medical Education Research
Durham University
Burdon House
Leazes Road
Durham
DH1 1TA

email j.c.illing@durham.ac.uk

<mailto:j.c.illing@durham.ac.uk>

Websites for help and advice:

BMA Doctors Well-being

<http://bma.org.uk/practical-support-at-work/doctors-well-being/websites-for-doctors-in-difficulty>
08459 200169

Doctors and Dentists in Difficulty

<http://www.northerndeans.nhs.uk/NorthernDeanery/deans-office/faculty-education/doctors-dentists-in-difficulty>



Appendix 4: Trainer Interview Participant Information Sheet

I would like to invite you to take part in a telephone interview as part of my research study. Before you decide, we would like you to understand why the research is being done and what it would involve for you.

Please read this sheet carefully. If you have any questions, there are contact details at the end of this sheet. Talk to others about the study if you wish.

What is the purpose of the study?

The research will look at whether some trainees are more likely than others to experience difficulties during their training. In doing so the research hopes to understand more about these issues and identify what can be done to help support trainees and trainers.

Why have I been invited?

All Training Programme Directors, Directors of Schools, Educational Supervisors and Managers of Schools in the North East Local Education and Training Board are being invited to take part in the interviews. All trainees who have received an extended or targeted period of training and who are currently undertaking specialty training are also being asked to take part in an interview.

Do I have to take part?

Participation is entirely voluntary. If you agree to take part now, you can still change your mind about participation later.

What am I being asked to do?

You are being asked to take part in a short telephone interview (approximately 20 minutes) to discuss your views of trainees who are having difficulty in their training and what support can be put in place to support them.

Before the interview starts you will be asked if you are happy to consent to the interview being recorded and later transcribed. This is to support easier analysis.

Data Protection

The recording will be confidentially transcribed, and will be erased following transcription. In addition all identifiable data will be removed during the transcribing of the data. In addition all data will be aggregated during the reporting and dissemination of the findings making identification of participants even more secure.

What are the possible disadvantages and risks of taking part?

It is possible, but unlikely that the questions may address issues you are uncomfortable with, if so, please be aware you can decline to discuss anything you are uncomfortable with. After the interview, if there are any issues raised that you would like to speak to someone about, there are contact details at the end of this form.

What are the possible benefits of taking part?

This research aims to improve the experience of trainees, trainers, the health team and patients. The research will provide more understanding about the trainees who need extended periods of training (or need targeted) and will identify ways to support them.

Will my taking part in this study be kept confidential?

Yes. We will follow ethical practice and all information about you will be handled in confidence.

The recording of the telephone interview will be anonymised during transcription, and the transcript will not include your name. All transcripts will be stored securely on the University's secure network, to which only I and one or two members of the Centre for Medical Education Research (my supervisors) will have access.

[Type text]

Quotes from the interviews may be used in reports and papers, but will be aggregated and will not include any details which could identify anyone.

What will happen if I don't want to carry on with the study or am unable to?

Once the interview is completed, you will not be expected to have anything more to do with the study.

If you decide you have said something that you would prefer not to be used as data then this would be removed.

Who is organising and funding the research?

This phase of the research is being part funded by the University and earlier work on this topic was funded by the Health Education North East (formerly the Northern Deanery). However, HENE will have no access to data and will only receive summary reports about the data.

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Who has reviewed the study?

This research has been reviewed within the Durham University School of Medicine Pharmacy and Health ethics committee.

Further information and contact details

If you have any questions or concerns about any aspect of this study, please feel free to contact the lead researcher who will try to answer your questions:

Mrs Charlotte Rothwell
Research Fellow
Centre for Medical Education Research
Durham University
Burdon House
Leazes Road
Durham
DH1 1TA

email. c.r.rothwell@durham.ac.uk

Or

Professor Jan Illing (PhD supervisor)
Director of the Centre for Medical Education Research
Durham University
Burdon House
Leazes Road
Durham
DH1 1TA

email j.c.illing@durham.ac.uk

Appendix 5 - Ethics (Phase Three)



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Dr David Ekers
Clinical Senior Lecturer

Chair, School of Medicine, Pharmacy and Health Ethics Sub-Committee

Charlotte Rothwell
School of Medicine, Pharmacy and Health
Durham University

23rd October 2014

Dear Charlotte,

Re: Ethics Application ESC2/2014/11
Doctors with Differing training needs

Thank you for sending the above application to the School of Medicine, Pharmacy and Health Ethics Sub-Committee for ethical review. The project was reviewed at a meeting on 20th August 2014. The committee requested some changes to the application, and I have now reviewed these as Chair. I am satisfied that all of the comments made by the committee have been addressed and I am therefore pleased to confirm Durham University ethical approval for the study.

This approval is given on the following basis:

- Please ensure that data generated for this study is maintained and destroyed as outlined in this proposal and in keeping with the Data Protection Act.
- If you make any amendments to your study, these must be approved by the School committee prior to implementation.
- At the end of the study, please submit a short end of study report (ESC3 form) to the School ethics committee.

Please do not hesitate to contact me should you have any questions. Good luck, I hope that the study goes well.

With best wishes,

David Ekers

Appendix 6 - Consent forms (trainers and trainees – Phase Three)



Durham
University

School of Medicine,
Pharmacy and Health

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Consent and Pre - screening questionnaire

All information will be confidential to the researcher and non-identifiable in reporting of data

Please write yes or no against the statements below:

Consent

1. I confirm that I have read and understand the information sheet dated 15 th March 2015 Version (Rothwell_trainer info sheet_v3 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	
3. I understand the interview will be audio-recorded and confidentially transcribed (if you agree). I agree that anonymised quotes may be used in reports and publications.	
5. I agree to take part in the study.	

Demographics

1) Are you...? Male <input type="checkbox"/> ¹ Female <input type="checkbox"/> ² Do not wish to disclose <input type="checkbox"/> ³		2) What is your age? 18-24 <input type="checkbox"/> ¹ 25-34 <input type="checkbox"/> ² 35-44 <input type="checkbox"/> ³ 45-54 <input type="checkbox"/> ⁴ 55 or over <input type="checkbox"/> ⁵ Do not wish to disclose <input type="checkbox"/> ⁶	
3) What is your marital status? Single <input type="checkbox"/> ¹ Married <input type="checkbox"/> ² Cohabiting <input type="checkbox"/> ³ Divorced <input type="checkbox"/> ⁴ Widowed <input type="checkbox"/> ⁵ Other <input type="checkbox"/> ⁶ Do not wish to disclose <input type="checkbox"/> ⁷			
4) In which ethnic group do you classify yourself?			
White <input type="checkbox"/> ¹ British <input type="checkbox"/> ² Irish <input type="checkbox"/> ³ Any other white background:	Mixed <input type="checkbox"/> ⁴ White & Black African <input type="checkbox"/> ⁵ White & Black Caribbean <input type="checkbox"/> ⁶ White & Asian <input type="checkbox"/> ⁷ Any other mixed background:	Asian <input type="checkbox"/> ⁸ Indian <input type="checkbox"/> ⁹ Pakistani <input type="checkbox"/> ¹⁰ Bangladeshi <input type="checkbox"/> ¹¹ Chinese <input type="checkbox"/> ¹² Any other Asian background:..... .	Black <input type="checkbox"/> ¹³ Caribbean <input type="checkbox"/> ¹⁴ African <input type="checkbox"/> ¹⁵ Any other black background:

Appendix 7 – summary of the general medical council good medical practice, (2013) domains

Core value in medical training	Values expected in the medical culture
Domain 1 – Knowledge skills & performance	Commitment
	Motivation to study and interest in the medical profession
	Insight and reflection
	Personal organisation
Core value in medical training	Values expected in the medical culture
Doctors must be able to apply knowledge & experience to practice	Problem solving
	Dealing with uncertainty
	Resilience and dealing with difficult situations
Domain 2 – Safety and quality	Manage risk – take responsibility for their own actions
	Conscientiousness
Domain 3 – Communication, partnership & teamwork	Effective communication, including reading, writing, listening & speaking
	Teaching, training and assessing
	Continuity and coordination of care - Ability to take responsibility for own actions
	Conscientiousness
Domain 4 – Maintaining Trust	Ability to treat people with respect
	Take responsibility for own actions
	Empathize and care about others
	Honesty
Individual/ cultural values	
	Cultural e.g. religious, worldview, medical culture/values of country of graduation
	Change in circumstance e.g. children, working part-time, health issue