

HUMAN CAPITAL IN THE
OPERATING DEPARTMENT: THE
SIGNIFICANCE OF ACADEMIC
QUALIFICATIONS TO THE
OPERATING THEATRE
WORKFORCE

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Abstract

The pre-registration preparation of health care professionals for work in the operating department is in a transformative period. Now firmly entrenched in higher education, the professions are pursuing a policy of graduate entry based on a discourse underpinned by human capital theory. The impact of the introduction of graduate entry to nursing and Operating Department Practice (ODP) is explored in the context of the role of these professional groups in the operating department. A purposive sample of ODPs and theatre nurses participated in a survey, which was followed up with semi-structured interviews with a purposive sample of ODPs and theatre nurses, from each of the salary Bands 5 – 8.

The findings from the study provide an original contribution to the field of education in three areas. First is a reconceptualisation of human capital theory which acknowledges both organisational and individual factors as determinants of participation in further education and training. Human capital theory is repositioned as a multidimensional model which maintains and builds on Becker's (1993) original conceptualisation. Second is an insight into professionalisation at an individual practitioner level, which is linked to the red queen hypothesis to explain individual actions and reactions to the introduction of graduate entry. Third, a recommendation for review of the pre-registration training for ODPs and nurses is made, based on how the practitioners in this study developed their body of professional knowledge and contextualised clinical experience.

Glossary of Terms

A&E – Accident & Emergency department

AAGBI – the Association of Anaesthetists of Great Britain and Ireland

Academicisation – the process of increasing the academic credential for entry to work.

Allied Health Professional – used to describe the group of registered health care professionals allied to medicine and nursing.

BIS – Department for Business Innovation and Skills

CODP – the College of Operating Department Practitioners. The professional body for ODPs.

CPD – Continuing professional development. All registered health professionals are obliged to participate in and demonstrate their CPD as part of their continued registration.

DH – Department of Health

HCPC – the Health and Care Professions Council (formerly the HPC – Health Professions Council). The regulatory body for ODPs.

HDU – High Dependency Unit. A hospital department that provides one-to-one care for acutely ill patients.

ITU – Intensive Therapy Unit. A hospital department that provides one-to-one care for critically ill patients who may require ventilatory support and intensive haemodynamic monitoring.

NMC – the Nursing and Midwifery Council. The professional and regulatory body for the nursing profession.

NPSA – National Patient Safety Agency

ODA – Operating Department Assistant

ODP – Operating Department Practitioner (formerly ODA)

PCC – Peri-operative Care Collaborative

Post-registration – activities carried out by a professional after their inclusion on the professional register.

Practitioner – used to collectively denote the roles of ODPs and nurses in the operating department

Pre-registration – activities undertaken prior to access to the professional register.

Profession Allied to Medicine – all health care professions that work with the medical profession (including nursing).

UKCC – the United Kingdom Central Council. The former statutory regulatory body for nursing and midwifery. Superseded by the Nursing & Midwifery Council.

Chapter 1: Introduction

1.1 Introduction

The initial training of health care professionals in the United Kingdom (UK) is in a transformative period. In the case of Operating Department Practitioners and nurses staffing hospital operating departments, the transition has been made from hospital-based training schools to a preparation for professional practice that is firmly located in higher education. This transition began in the mid-1990s and gained momentum under the Blair government and its educational policy to support the learning age and develop a workforce that was fit to compete in a global economy (Department for Education and Employment, 1998). Alongside this, the introduction of a strategy to widen participation in higher education opened the doors for a wide range of developments, which included the incorporation of the health professions.

The policy of widening participation in higher education has continued post-New Labour under first, the Conservative/Liberal Democrat coalition and, currently, the Conservative government, where nursing has fulfilled its aspiration to become a graduate-entry profession. Other professional groups such as Paramedics and Operating Department Practitioners aspire to achieve graduate entry. Fuelling this move into academia, and the pursuit of graduate entry, is the rhetoric surrounding human capital development where there is a perception that possession of a degree on entry to, in this case, a health profession, will have two impacts which are discussed below.

First, degree level study is associated with the potential to earn a higher salary (Department for Business Innovation and Skills, 2016). Here, a link is made between the expert knowledge developed by graduates during their higher education studies and their subsequent increased productivity in specialised roles, which impacts positively on the salary earned by the graduate; the main premise underpinning human capital theory (Becker, 1993). The maintenance of the UK's position in the high skills global economy is dependent on the production of a highly educated workforce (Department for Business Innovation and Skills, 2016) whose development and use of new technologies improves

productivity. This technological revolution is also apparent in healthcare where new treatments are based on improved diagnostics and the introduction of, for example, surgical robots which are operated remotely by the surgeon. These new techniques require all involved with the care of the patient to develop new knowledge and skills related to the new therapy, which a degree is supposed to provide them with.

Second, in relation to health care, the high skills economy is reflected in standards of patient care. The parallel here being that a highly educated healthcare workforce is better able to care for their patients. The literature surrounding the move of nursing to degree-level entry abounds with discourse reflecting the graduate characteristics developed as a result of degree-level study and the impact of this on the nurses' role (e.g. Aiken *et al.*, 2003; Department of Health, 2008; Nursing and Midwifery Council, 2015a). According to this discourse, degree educated nurses are better able to interpret clinical data, demonstrate problem solving skills, and apply new knowledge to patient care in the name of evidence-based practice (Shipman & Hooten, 2010). There are also claims that patient safety is improved in that graduate nurses are more likely to identify and respond to changes in the patient's condition than their non-graduate counterparts (Aiken *et al.*, 2003). This discourse has driven educational policy for graduate entry to nursing, and is being applied to the other non-graduate health professions as evidence of the need to move to graduate entry.

However, questions are raised about these claims when reports of clinical error are reported. In February 2016, the Press Association conducted an analysis of so called *never events* in health care and reported on their occurrence over the period April 2012 to the end of December 2015 (BBC News, 2016). Never events, as the name suggests, are events that present grave risk to the patient and should therefore never happen in a clinical environment. In the operating department these events include surgical instruments or sundries such as swabs and needles remaining inside the patient post-surgery; operating on the wrong patient; and operating on the wrong limb or digit. In the period selected for analysis, the Press Association found that 1188 never events were reported (BBC News, 2016), although not all of these events can be attributed to the

operating department because they include ward-based errors such as administering the wrong medicine to patients. As a means of mitigating these events in the operating department there has been a widespread uptake of the World Health Organisation's Safe Surgery Saves Lives campaign (World Health Organisation, 2009) by hospitals, which has led to the introduction of the Surgical Safety Checklist.

The Surgical Safety Checklist was introduced as a means of improving communication between members of the operating theatre team prior to commencement of surgery. Based on the pre-flight cockpit drill performed by airline pilots, the operating department team are encouraged to share information relating to the patient's clinical condition, the proposed anaesthetic technique and the surgical intervention. Checks are performed at key stages of the patient's journey aimed at confirming patient identity and site of operation. Scheduled time-out periods occur prior to the surgical incision and prior to the patient leaving the operating theatre aimed at reducing perioperative complications and ensuring all surgical sundries are accounted for. The time-out period involves ceasing all activity once the patient is safely settled on the operating table and prior to the reversal of their anaesthetic. Final checks are then made to confirm the patient's identity and operation site (prior to surgery), and to confirm that all surgical items have been accounted for post-surgery. However, despite the implementation of the Checklist, errors are still being made. The BBC report includes an extract from an interview with Katherine Murphy, Chief Executive of the Patients' Association:

It is a disgrace that such supposed 'never' incidents are still so prevalent. How are such basic, avoidable mistakes still happening? There is clearly a lack of learning in the NHS (BBC News, 2016).

The questioning of the NHS's role as a learning organisation is particularly pertinent in view of the policy changes to the pre-registration training of health professionals.

In addition to changes in education policy, the provision of health services in the second decade of the twenty-first century is characterised by rapid change in response to a changing health demographic and financial constraint. The

Conservative government's health policy provides a five year forward view aimed at providing community-based care, improving health promotion, and provision of a seven-day service (NHS England, 2014). This is a continuation of the Conservative/Liberal Democrat coalition policy where there was additional focus on empowering front line staff to actively participate in the development of health service delivery, and ensuring that the workforce is appropriately trained and qualified for their role (Department of Health, 2010a). This is linked with the delivery of a service for an aging population who is living longer and living with a range of comorbidities, making individualised health care increasingly challenging. Alongside this are changes in the clinical environment characterised by the technological revolution alluded to above, and changes in the working practices of health care professionals. The European Working Time Directive (British Medical Association, 2013) serves to restrict junior doctor working hours and has led to a review of the utilisation of junior doctors. As a result of this some duties that once fell into the medical domain have now been picked up by the allied health professions and nursing resulting in an expansion in their scope of professional practice (Cockayne, Davis & Kenyon, 2007).

Review of the research literature surrounding the training of health care professionals for their role in the delivery of high quality care has determined that professions such as nursing are compelled to expand their body of professional knowledge and skills repertoire, due to their increasing scope of practice. The argument then naturally transfers to the preparation of health professionals for their role and concludes that there is now demand for a higher academic level of education to support this change (Shipman and Hooten, 2010). Thus, the changing face of service delivery has influenced the transition of professional training which is now firmly entrenched in higher education. The net result of this transition is the pursuit of graduate entry to all of the health professions.

1.2 Context of the Study

This study focuses on the policy changes discussed above in one specific area of health care delivery, and explores the impact of the pursuit and introduction of graduate entry on two healthcare professional groups staffing hospital

operating departments: Operating Department Practitioners (ODPs) and theatre nurses. In terms of broad service delivery, ODPs and nurses are employed to perform similar roles. Indeed, the job description by which these professionals are appointed to their role in the operating department is the same, and the point of entry to the NHS salary banding on completion of their professional training is the same. However, the route that ODPs and nurses take during their pre-registration training is very different.

The operating department is an area that has undergone a major change in working practices over the last decade. Surgery and anaesthesia are becoming more complex, based on an exponential increase in knowledge of a range of medical and surgical conditions, and technological advancement, which means that even patients with major traumatic injuries have an increased chance of survival. As services adapt and change, the workforce needs to change with them. As the new technologies and practices are introduced, there is a natural development in the knowledge base of the workforce and this must be transferred to, and reflected in, the training programmes delivered by universities to prepare new health care professionals for their role. As new developments are introduced, health professions' educational policy adapts to account for the new knowledge required to perform their role, which has a knock-on effect on the criteria for entry to the professional register.

The current situation is that nurses are prepared for their role via a 3-year, degree level (academic level 6) programme of study. Nurse training has become increasingly specialised and student nurses select a branch-specific route of preparation as either adult, child, mental health or learning disabilities nurses. ODPs are prepared for their role via a 2-year Diploma in Higher Education (academic level 5)¹ award that specifically focuses on their role in the operating department. There is a policy focus in health on ensuring that the right people, with the right skills are in place to deliver care (Department of Health,

¹ The professional award cited in this study reflects the academic level of professional training offered by the author's host institution. The academic levels for pre-registration training reflect the threshold entry criteria set by the respective regulatory bodies for ODP and nursing. The academic level of pre-registration training in other institutions may exceed the threshold entry level.

2010a). This is supported by an education policy focused on developing a highly skilled workforce with attributes that allow them to solve problems and be adaptable to change. With this in mind, the staffing of the operating department raises some interesting questions relating to the employment of two professional groups with different academic levels and routes of preparation, the salary paid to each of these groups, and the prospects for the development of these professional groups to meet current and future healthcare needs.

The origins of this research study lie in the challenges faced by educators and employers in training and recruiting sufficient numbers of suitably qualified practitioners for work in the operating department. Operating Department Practitioners and theatre nurses appear on the list of occupational shortages in the NHS (Department of Health, 2010a). The chronic staff shortages experienced in the operating department appear to be a direct result of a dysfunctional workforce planning process which has been exacerbated by a continued failure by government organisations (e.g. Department of Health, Health Education England) to acknowledge Operating Department Practice and nursing as two separate professions. Indeed, in promoting the role of the Allied Health Professions (AHPs), NHS England fail to identify Operating Department Practitioners as an Allied Health Profession (NHS England, 2016). This is continued in the current workforce planning activities where the ODP profession is incorporated with the nursing profession and does not have a distinct identity in workforce plans. The potential reasons for this are historical and are explored further in section 1.3.

This research study addresses this issue by examining the nursing and ODP professions as discrete professional groups within the context of their work in the operating department. Furthermore, distinctions are made between the roles of the two professional groups and the study explores how these professional groups continue to develop in the face of changing demands on service delivery. The focus of the study is on how these groups use academic credentials and how these credentials impact on their role in the provision of safe and effective patient care. For the first time, since the emergence of Operating Department Practice as a profession, the current study provides empirical evidence which reflects areas of divergence and convergence

between the roles of ODPs and nurses in the operating department. The study also investigates how the move to graduate entry for nursing, and the potential move to graduate entry for ODPs is perceived by members of these professional groups. However, before empirical study is discussed, it is important to provide a historical perspective which will help to contextualise the arguments that follow.

1.3 Operating Department Practice: A Historical Perspective

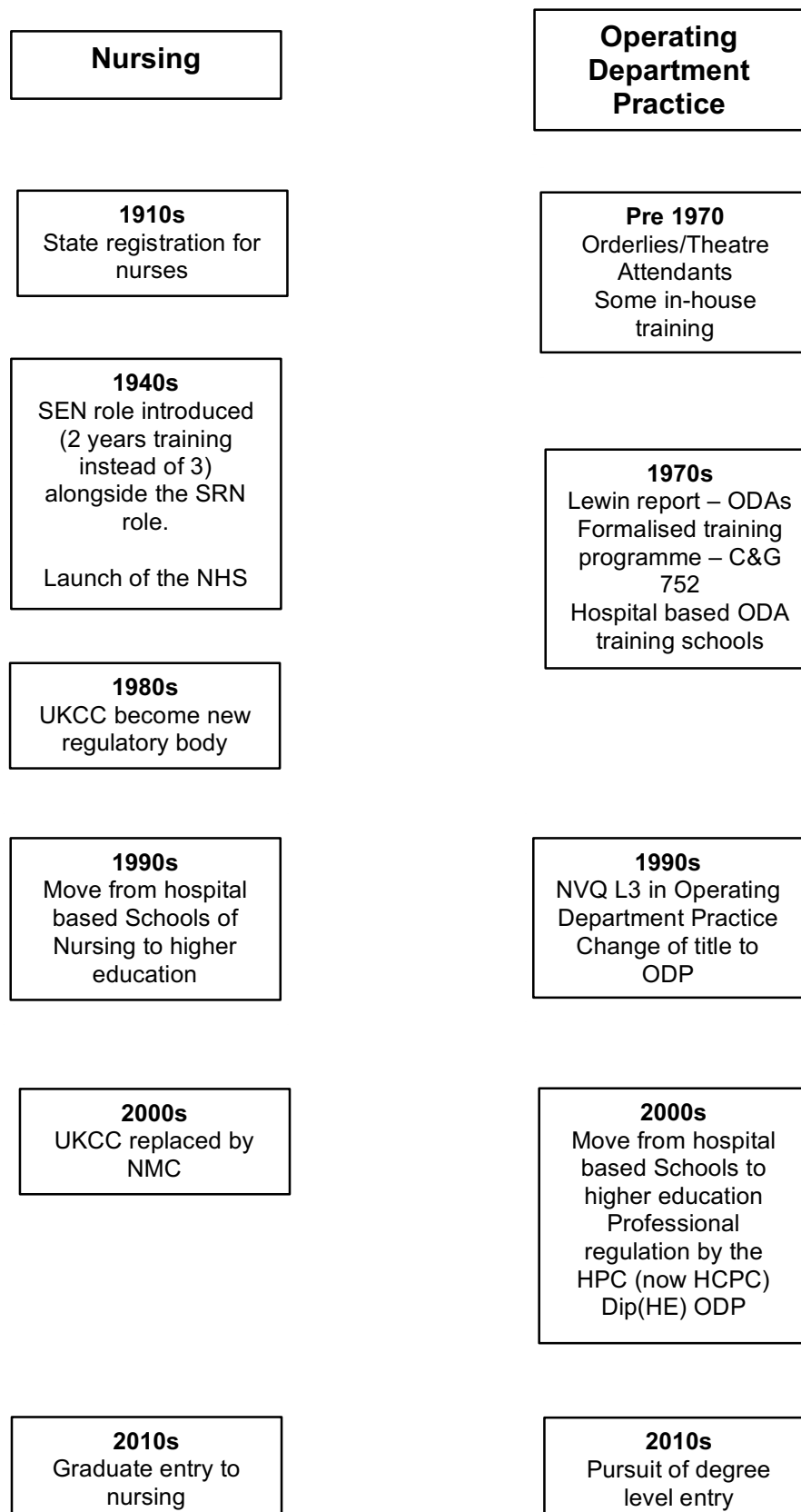
Timmons and Tanner (2004) bemoan the difficulties associated with determining the history of relatively obscure branches of health care. One of the main issues they identify is the reliance on individual accounts from the professionals themselves and the potential for the introduction of professional bias into the account. However, what cannot be disputed is that historically the now registrant operating theatre workforce was derived directly as a result of a failure to recruit nurses in sufficient numbers to staff the operating department. Up until the 1970s, theatre nurses provided support to the surgical team and were responsible for the preparation of equipment for surgery and the immediate after-care of the patient following their operation. The nursing workforce was supplemented by hospital/theatre orderlies, a group of untrained staff whose origins lie with the handlers, surgery men, box carriers and beadles (Timmons and Tanner, 2004). The primary function of these roles was in carrying the surgeon's instrument sets and holding patients still during surgery in times before the advent of anaesthesia. The Theatre Orderly workforce progressed to carry out duties relating to the cleanliness of the department with some acting as theatre porters. Some orderlies developed their role to provide support to the anaesthetist. The significance of this early history is that nursing provided a dominant professional presence in the operating room that underwent specialisation as anaesthesia and surgery progressed (Timmons and Tanner, 2004).

In the 1950s and 1960s there was a major technological revolution in anaesthesia and surgery. Surgical procedures became increasingly complex which significantly increased the time that it took to complete them. This resulted in fewer nurses taking up positions in the operating department leading

to a review of the theatre workforce. The Lewin Report into the staffing and organisation of operating theatres was published in 1970 with a key recommendation that a new, specialised role be developed, along with a formalised preparation pathway (Reid and Catchpole, 2011). This saw the birth of Operating Department Assistants (ODA). To support the new role, dedicated, hospital-based training schools emerged and the training credential was accredited by City & Guilds of London Institute. The title of Operating Department Practitioner (ODP) came at a later date and coincided with the emergence of National Vocational Qualifications (NVQs). The NVQ level 3 in Operating Department Practice superseded the City & Guilds 752 ODA programme and served as the entry route into the role for most of the 1990s, reflecting the hands on, vocational nature of the role.

During this time nurses continued to play a significant role in the provision of peri-operative care. Reid and Catchpole (2011) report on the ODA's subservience to nursing due to historical and legislative constraints which inhibited ODA professional development. However, as the ODA/P roles became established a number of tensions and disputes arose surrounding the role definitions of ODA/Ps and nurses (Timmons and Tanner, 2004). Figure 1.1 provides a timeline of some of the key events impacting on the nursing and ODP professions. The professional tensions alluded to by Timmons and Tanner (2004) and Reid and Catchpole (2011) were created, in part, by the state registered status of nursing, and partly from nurses' attempts to protect their profession.

Figure 1.1: Timeline of significant developments in the nursing (after Eaton, 2012) and ODP professions (based on the historical perspectives provided by Reid & Catchpole, 2001 and Timmons & Tanner, 2004)



The timeline shows that the nursing profession achieved state registered status in the second decade of the twentieth century (1919 to be precise). With this came added responsibilities through the process of professional accountability. This served as an argument to support the dominance of nursing over the ODP profession until the first decade of the twenty-first century, when ODPs too became a registered profession. The first ODPs entered the professional register held by the Health Professions Council (now Health and Care Professions Council) in 2004. Registration of ODPs coincided with a review of roles and responsibilities of NHS staff and their allocation to a common pay spine (Department of Health, 2004), thereby bringing together the role definitions for ODPs and nurses.

Although there are distinctly different routes of professional development evident in the timeline and preceding discussion, it appears that ODPs and nurses are still viewed collectively in terms of workforce planning for the operating department. So much so, that the commissioning process for identifying and funding professional preparation and the NHS bursary financial support package on offer to students during training are identical for ODPs and nurses (NHS Business Services Authority, 2016a). At present the tuition fees for ODPs and nurses are fully funded via the workforce planning activities of Health Education England and its subsidiaries. However, from 1st August 2017, as a result of the government's comprehensive spending review, this funding will be withdrawn and all ODP and nursing students will be required to enter the student loans system (NHS Business Services Authority, 2016b). This gives ODP and nurse pre-registration training the same status as any other higher education award and presents an opportunity to review the scope of practice and professional training for both professional groups.

This historical review showing the emergence of the ODP profession from a role traditionally performed by the nursing profession, provides some explanation of the current workforce planning issues where ODP and theatre nursing are viewed synonymously. Therefore, an aim of this study is to provide evidence of the strengths and limitations of each professional role in terms of its contribution to operating department practice to serve as a means to inform future workforce

planning activities and to promote each profession's role in the operating department.

1.3.1 Operating department practice: what is it?

Overview of the roles of the professional groups staffing the operating department serves to further aid understanding of the issues covered in this study. Operating department practice, a generic term that will be used throughout this study, focuses on the safe and effective care and treatment of patients in the operating department. A review of the professional standards for Operating Department Practitioners (Health and Care Professions Council, 2014a) shows that care in the operating department is focused on three core areas identified as anaesthesia, surgery, and recovery (sometimes referred to as post-anaesthetic care).

1.3.1.1 Anaesthetic care

The anaesthetic practitioner will have undertaken specific training and assessment across a range of elective and emergency anaesthetic-related situations as part of their training. This allows them to meet, not only their regulatory body standards, but also the standards set for inclusion in the anaesthesia team devised by the Association of Anaesthetists of Great Britain and Ireland (AAGBI, 2012). This role involves the preparation of equipment and drugs to support procedures involving general anaesthesia, regional anaesthesia and local anaesthesia. General anaesthesia involves putting the patient to sleep and supporting the patient's vital functions (e.g. breathing) throughout their surgical procedure. Regional anaesthesia requires the blockage of nervous impulses to a large region of the body (e.g. lower limbs) by administering a local anaesthetic agent. Common forms of regional anaesthesia are spinals and epidurals, where the local anaesthetic is injected around the nerves leaving the spinal cord. Local anaesthesia is the administration of local anaesthetic agent in a specific, localised area of the body to allow the surgeon to perform minor surgery.

To support these techniques essential equipment must be available to manage the patient's airway (so that patients can breathe without obstruction) and to

support their respiratory function if required. Associated areas of practice include developing skills and knowledge in intravenous therapies, fluid/blood replacement, invasive and non-invasive monitoring of the patient's condition. To perform this role, the practitioner will have knowledge of relevant anatomy and physiology, pharmacology, anaesthetic techniques and identification and response to clinical emergencies.

1.3.1.2 Surgical care

The surgical practitioner performs two interrelated roles in acting as either a scrub practitioner or circulating practitioner. The scrub practitioner is a member of the surgical team and their role is defined by the Perioperative Care Collaborative (PCC, 2012). The term scrub originates from the aseptic technique used to create and maintain a sterile field within which the surgery will take place. The primary role of the scrub practitioner is to ensure the surgical team have all instruments and sundries required for the procedure and that these are fully accounted for, i.e. there are the same number of instruments and sundries at the end of the operation as there were on commencement. The circulating role or *runner* requires the practitioner to support the scrubbed surgical team by connecting sterile equipment used by the surgical team to equipment that sits outside of the sterile field, or providing additional surgical items for the sterile team. These items have an outer wrap that is removed in a particular way to ensure that the scrubbed practitioner comes into contact with only the sterile content. The circulating role is performed by registered practitioners and Health Care Support Workers. To support these roles, the practitioner requires knowledge of surgical procedures and relevant anatomy and physiology, as well, as developing knowledge of the functioning of surgical equipment and instrumentation, including different types of suture material and materials used to dress surgical wounds.

1.3.1.3 Recovery care

Following their procedure, patients are transferred to the recovery (or post-anaesthetic care) area where they recover from their anaesthetic and surgery under the direct observation of the recovery practitioner. Here the practitioner continually assesses the patient's condition looking for key indicators of

recovery or deterioration. The patient's levels of consciousness, pain status, temperature and vital signs are all reviewed, along with checks on the operative site for excessive bleeding. Again, the Association of Anaesthetists of Great Britain and Ireland (AAGBI, 2013) provide guidelines on the requirements of the recovery practitioner which are incorporated into the professional standards developed for this area of practice. To support the role in this area, the practitioner requires knowledge of anaesthetic and surgical techniques and patient assessment techniques. Practitioners may be required to administer pain relief and may be involved in the initiation of emergency care should the patient's condition deteriorate.

1.3.1.4 Associated Areas of Operating Department Practice

Underpinning the core areas is the need for effective communication and team work as the patient is received into the department and then transferred through each area of the department and back to the surgical ward. All practitioners should be conversant with a range of emergency situations that may require immediate intervention. As qualified practitioners build up a body of experience, they may choose to extend their scope of professional practice to develop advanced clinical skills and knowledge or to work in other clinical areas associated with the operating department, for example, intensive care or emergency departments.

1.4 Aims of the Study

Grounded in the conceptual framework of human capital theory, and placed against the backdrop of professionalisation presented by Larson (1977), this study will investigate the nursing and Operating Department Practitioner roles in the operating department and how individuals working in these professions perceive the ongoing focus on academic credentials.

1.4.1 Human Capital Theory and Professionalisation

As alluded to earlier in this chapter, human capital theory provides a positive correlation between years in education, increased productivity and increased

salary (Becker, 1993). Developed in post-World-War Two America, human capital theory is used to explain the growth of the United States' economy, by viewing the workforce as a means of capital that sits alongside the physical capital of organisations. In essence, if investment is made in developing the human capital of the workforce, particularly in specialist areas of productivity, the organisation gains an edge over its competitors in terms of its ability to generate income. Becker's theory indicates that when this happens, the specialist members of the workforce benefit by receiving an increased salary.

There are a number of caveats introduced by Becker that impact on investment in human capital, such as organisations carrying out a cost-benefits analysis to determine how quickly their investment in developing their workforce will be recouped. As such, human capital theory is criticised for its focus on the needs of the organisation rather than the needs of the individual worker (e.g. Fuller, 2001). Nevertheless, human capital theory has underpinned much of the educational policy of subsequent UK governments since the election of New Labour in 1997. Discourse focuses on the link between participation in higher education and graduate status, and the potential to command a higher salary than the non-graduate workforce (Department for Business Innovation and Skills, 2016).

However, the development of a specialised workforce that monopolises productivity in one specific area has parallels with the mechanics of professionalisation presented by Larson (1977). According to Larson specialisation leads to the development of organisations and bodies that ultimately act as gatekeepers to the specialist area of work by developing regulations and standards for access to that area. The link between human capital development and professionalisation is evident in the earlier discussion of the evolution of the nursing and Operating Department Practice professions. Here, a shortfall in the numbers of nursing led to the development of a new workforce group (ODAs). What followed is a coevolution of two professions which is characterised by professional tensions as each specialised group vied to monopolise services in the operating department (Timmons and Tanner, 2004).

The result of this is that there are now two professional groups staffing the operating department, who have a common objective, but different routes of preparation for their role. However, there is evidence of inter-professional competition in the move to graduate entry to the profession. As figure 1.1 shows, nurses have realised their aspiration of graduate entry to the profession and ODPs are still pursuing their professional agenda for graduate entry. This inter-professional competition has parallels with organisational development (Barnett and Hansen, 1997) in that advancements within one professional group leaves the other groups with one of two choices: they either try to evolve (in this case ODPs pursue graduate entry, as discussed above), or they face extinction.

The evolutionary pathway is not without issues such as those associated with the massification of higher education and the perceived value of the degree (Mok, Wen and Dale, 2016). There is also a knock-on effect linked with extending the professional scope of practice of graduate entrants to the profession. There are a number of duties that will be considered lower level by the graduate workforce which are essential to high quality patient care. This provides the opportunity for the support worker workforce to extend their scope of practice, thus introducing a two-tier approach to care delivery reminiscent of that in Australia (Jacob, McKenna and D'Amore, 2016). Finally, the viability of the professionals as academic disciplines is questioned based on the traditional vocational preparation of, in the case of this study, the ODP and nurse workforce (Thompson, 2009). These issues will be considered as part of the thesis.

1.4.2 Structure of the Thesis

The study meets its aims over the next six chapters, each of which has a specific focus. The literature review (Chapter 2) introduces human capital theory as the conceptual framework around which the study is built. Beckerian human capital theory is extended and applied to the current-day preparation of the operating department workforce. The literature review was initially limited by the dearth of literature relating to operating department practice and the ODP profession. Therefore, the immediate focus was on the application of human capital theory to nursing and other health professions through a critique of the

literature around increasing academic credentials at entry level. This led to a search strategy which was widened to include literature relating to graduateness, credentialism, career transitions, professionalisation, and working relationships. The result is a reinterpretation of human capital theory as a multidimensional concept incorporating all of these areas. This multidimensional reconceptualisation is then placed on an egalitarian – elitist continuum to explain policy decisions towards the pre-registration training of healthcare professionals. The literature review concludes by stating the research questions that form the basis of the investigation. The questions reflect the dimensions of human capital development and drive an investigation into how these influence the professional practices of ODPs and nurses at pre- and post-registration levels.

Chapter 3 provides a justification for the research design, which is driven by the research questions presented in Chapter 2. The philosophical assumptions of the researcher are explored and a justification for a mixed-methods approach to the investigation is provided. The notion of research bound in the traditions of a specific paradigm reflecting positivist or interpretivist ontology and epistemology is rejected. Instead, an aparadigmatic approach to the research process is proposed which facilitates the use of two or more methodologies in the collection and interpretation of data, which can then be legitimately brought together in one project. This chapter goes on to discuss the data collection methods and instruments and quality assurance processes. Ethical considerations associated with recruitment of the research sample are also addressed. This chapter ends with an overview of the procedure employed to conduct the study and analyse the data.

Data analysis and findings of the research are discussed over three chapters which reflect key areas of data collection based on the three primary research questions. The first area of investigation, Chapter 4, examines the influence of a professional's academic credentials and their position in the workforce. Here, quantitative data is analysed to construct a picture of the theatre workforce, linking academic credentials, salary and experience to role and position in an organisational hierarchy. This chapter also looks at the impact of academic credentials on the development of working relationships within the department.

This is followed by an analysis of the perceived benefits of continuing professional development in Chapter 5. A sub-group of the research sample is drawn off that is either currently engaged in, or plan to engage in credentialised CPD to investigate its motivation for this. The analysis also shows why some professionals choose to not engage in credentialised CPD activities. Chapter 6 investigates the impact of higher level qualifications on working practices in the operating department. The effectiveness of pre-registration training is analysed, and the impact of higher academic credentials on the individual and the profession as a whole is investigated.

Chapter 7 offers a conclusion to the research study and discusses the implications of the research findings for the pre-registration education of nurses and ODPs, and their continuing professional development. It also shows the perceived impact on individual professionals of increasing the academic credential required for entry into the professions. The original contribution to knowledge made by this research study is discussed along with the strengths and limitations of the study. The final part of the chapter is given to reflexivity as a researcher. Here the researcher is placed in the context of their social structures to explore how their presuppositions and ideology influences the research process.

Chapter 2: Literature Review

2.1 Introduction

Human capital development has become a dominant feature of UK health and higher education policies in the latter part of the twentieth and beginning part of the twenty-first centuries (P. Brown, 2001). The idea that an individual can increase their productivity and therefore their earning potential by increasing participation in training and education (Becker, 1993) provides a persuasive argument in support of the health professions' pursuit of graduate entry. Smith (2009) contends that globalisation, and its move of emphasis from nation-state economies to world markets has resulted in competition to secure the production of high-end products which requires a skilled, knowledgeable and adaptable workforce. In health care, this manifests itself as a technological revolution which, associated with a high skills economy (i.e. the need for the healthcare workforce to be skilled and knowledgeable in the use of this technology), means that the demand for health services is increasing as a result of an aging population living for longer with a range of co-morbidities that half a century ago would have resulted in early death (Department of Health, 2010b). Coupled with this is a shortage of supply of health professionals in some key areas of service delivery (e.g. some areas of medicine most notably general practice, but also operating theatres and other critical care areas) which has resulted in a modernisation agenda characterised by new ways of working (Department of Health, 2008).

The implementation of new ways of working has been expedited by the introduction of the European Working Time Directive/New Deal arrangements (British Medical Association, 2013) which place limitations on junior doctors' working hours. As a result, lower-level areas of medical practice (e.g. requesting certain diagnostic tests, prescription of a limited range of medications) have been handed to other professional groups who take these on under the banner of professional development. Therefore, the professions allied to medicine are extending their scope of professional practice to take on these

roles which requires them to undertake additional specialist training (Department of Health, 2008). The subsequent blurring of professional boundaries and up-skilling of the allied health professions, a significant feature of the *Five Year Forward View* (NHS England, 2014) supported by the Conservative Government (Monitor, 2015), has a profound effect on preparation of the health professions for clinical practice.

With the exceptions of Hearing Aid Dispensers (Foundation Degree), Paramedics (University Certificate) and, most notably for this study, Operating Department Practitioners (Diploma) the threshold entry level qualification set by regulatory bodies for the health professions is a minimum of degree (Nursing & Midwifery Council, 2010a; Health and Care Professions Council, 2014b; General Medical Council, 2015). In the latest review of their Standards of Education and Training, the Health and Care Professions Council (HCPC) did not increase the threshold entry level to Operating Department Practice beyond the existing Diploma in Higher Education (Health and Care Professions Council, 2014b). However, a number of regions in the United Kingdom have already taken to the decision to increase their local entry-level ODP qualification from Diploma (HE) to degree² in the hope that this will influence a national change.

The origins for the move to graduate entry for the health professions can be traced back to the tenure of New Labour. The Blair government of the late 1990s introduced the concept of lifelong learning through the Green Paper *The Learning Age: a renaissance for a new Britain* (Department for Education and Employment, 1998). This discussion paper places an emphasis on engagement with education, and a target of 50% of all 19 – 30 year olds entering higher education by 2010 (Department for Education and Employment, 1998). The central thrust of education as a means of fuelling the needs of a high skills

² There are a total of 25 providers of Operating Department Practitioner training in the UK. Of these 10 deliver the award at Diploma(HE) level, seven at degree level, and eight institutions offer the award at both Diploma(HE) and degree levels. Source: Health and Care Professions Council, <http://www.hcpc-uk.org/education/programmes/register/index.asp?intStartRow=1&EducationProviderID=all&StudyLevel=all&ProfessionID=7&PostRegistrationID=&ModeOfStudyID=all&IntakeStatus=Open&RegionID=#educationSearchResults> [accessed 13th August 2016]

economy has continued through to current education policy, where the links between education, productivity and social well-being are reinforced (Department for Business, Innovation and Skills, 2016). The transition of higher education from an elitist, academic pursuit to an egalitarian means of preparation for work was intended to close the vocational-academic gap (Fuller and Unwin, 2009) and this has clearly influenced the training and preparation for clinical practice of the health professions allied to medicine.

The move to graduate entry for the health professions was reinforced in 2010 when the coalition government presented their intentions for reform of the National Health Service (NHS) in the White Papers *Equity and excellence: Liberating the NHS* (Department of Health, 2010b) and the associated paper *Liberating the NHS: Developing the Healthcare Workforce* (Department of Health, 2010a). Central to the reform was the empowerment of frontline staff in the commissioning of health services and the improvement of healthcare outcomes (Department of Health, 2010a). There was an acknowledgement that workforce planning was a major issue and that there remained a skills deficit in some areas of service delivery, including “specialist skills in theatre . . .” (Department of Health, 2010a, p8). One very clear message delivered by the government was that the education and training of healthcare professionals was fundamental to their aims and that the commissioning of education and training must be based on workforce needs:

We must also ensure that healthcare providers have the *right* number of staff with the *right* skills to provide excellent standards of care both now – and for the future (Department of Health, 2010b, p3 my emphasis).

The tone for this policy can be traced back to the Darzi review of the NHS workforce commissioned by the previous Labour government (Department of Health, 2008), which concluded that to achieve the high standards of care required, the NHS must attract the best quality recruits; in essence getting the *right* people. In relation to nursing, Darzi reported, “Evidence suggests that a graduate registered workforce may help achieve these objectives” (Department of Health, 2008, p19). However, the focus of this statement is on attracting recruits into nursing only and leads to questions around the strength of the

evidence to support the contention that a graduate workforce improves the quality of care.

Critiquing the 2008 Darzi review, Imison, Buchan and Xavier (2009) question the use of the term 'right' and ask how this is defined and by whom. Their argument is that different stakeholders involved with the health services would each have their own definition of right which is context-specific. For example, patients would have differing views to those of clinicians, who again, would differ in their view from managers. It therefore transpires that an essential aspect of preparation of the health care workforce is to provide a clear definition of right.

The debate surrounding developing a workforce made of the right people continues and has been inflamed by a combination of the Coalition Government's Health and Social Care Bill of 2012 and a prominent political discourse moving towards a neoliberal model (Pownall, 2013). Continued through to current health policy initiatives, the Health and Social Care Bill reduces the role of government in determining how local health services are delivered. Instead clusters of General Practitioners assume responsibility for purchasing health services from providers based on the needs of their patients. Thus, a marketised approach to health care is introduced where local providers vie for business based on increasing specialisation and an ability to provide a high-quality service at low cost. This, coupled with the austerity measures introduced, first by the Coalition Government, and latterly continued by the Conservative Government has had a significant impact on the workforce planning process.

Health services are primarily developed around medical need and, as such, medicine becomes the dominant profession. The move from a generalist approach to medicine to one of specialisation sees the role of the medical practitioner contracting as they focus on the most profitable aspects of their role (Nancarrow and Borthwick, 2005). This contracture of role leaves several other tasks, considered as low level, available for the professions allied to medicine to pick up. This, in turn, leads to the lower level tasks of the professions allied to

medicine to be incorporated into support worker roles. The subsequent contracture of the allied health professions' role places them in a precarious position, particularly if medicine seeks to regain possession of the roles it once gave away. Furthermore, a key tenet of the Health and Social Care Bill is the concept of *any qualified provider* (Pownall, 2013). Any qualified provider was introduced to stimulate competition for work between the National Health Service (NHS) and private sector. However, in a workforce planning context, this could refer to any suitably qualified person, i.e. the right person for the job. Taken in this context, health care providers are in a position where their service could be provided by few of the expensive, highly qualified, specialised workforce (e.g. medics), with tasks devolved to individuals who have developed their human capital to extend their scope of practice (Freund *et al.*, 2015). In reconfiguring the workforce in such a way, the NHS service provider can make the efficiency savings required of them whilst providing adequate staffing levels (Driffield, 2016). Additionally, the contracture of the specialist role allows workforce analysts to construct arguments relating to the over-supply of the specialist body of workers (c.f. Nancarrow and Borthwick, 2005). This establishment of new ways of working is particularly pertinent in the current climate of shortage in the numbers of qualified health professionals (Freund *et al.*, 2015).

Planning the workforce in such a way raises concerns over the quality of care provided impacting on the safety of patients. Girot and Albarran (2012) make the link between the quality of education and quality of care, but bemoan the lack of suitably experienced and academically qualified professionals employed in health education institutions. As such, educational establishments are having to make similar workforce decisions as those faced by health service managers in deciding who provides the service, which may extend the individual's scope of practice and level of autonomy. The result of this is the refocusing of roles and responsibilities which generates a new division of labour based on the ways in which clinical tasks are shifted from one group of the workforce to another. Freund *et al.* (2015) point out that, as tasks are relinquished by the medical profession, other groups take them on under the auspices of *protocol-based care*. Here, the medical profession maintains its dominance by providing an

evidence-based heuristic for the care episode. Thus, protocols exist, for example, around the discharge of patients from the operating department after surgery, and the provision of emergency care (i.e. Advanced Life Support protocol). Protocol-based care provides an auditable checklist or algorithm that the practitioner follows, which includes points at which the care of the patients should be escalated and referred on to specialist practitioners. Consequently, health service managers now have a wider range of the workforce from which to draw the right person for the job.

In the name of developing the right people with the right skills, the first decade of the 21st century has been characterised by the transition of preparation of health professions from hospital-based schools to higher education. The complexity and nature of twenty-first century health care, it is argued, requires a flexible, responsive workforce that can adapt to the changing health needs of society (Department of Health, 2008), and this requires a workforce educated to degree level. Debell and Branson (2009) suggest that situating health professions' preparation for practice in higher education meets this requirement by simply creating an expectation that professional entry will naturally progress to degree level: in effect increasing professional entry level by association. They go on to cite rationalisation of the qualifications framework as a result of the Bologna process as a key driver for increasing the entry level for nursing from diploma to degree. What Debell and Branson fail to acknowledge is that any programme based in higher education is subject to the outcome of the Bologna process as the aim of this is to ensure that higher education across the European Higher Education Area is equitable, allowing ease of transfer for students studying abroad (Sirca *et al.*, 2006). As such, the Bologna framework is incorporated into the Higher Education Qualifications Framework, by the UK Quality Assurance Agency (2014).

Although Debell and Branson credit the Bologna process as the driving force behind degree level entry to nursing, the incumbent Labour government were highly critical of health care professionals' preparation for their clinical role. In the consultation document *A Health Service of all the Talents* (Department of Health, 2000) the term *academicisation* is introduced, where the government

are highly critical of the *over-academicisation* of the health professions. This is a direct criticism of a perceived over-reliance on university-based education as opposed to developing applied knowledge via on-the-job experience offered by clinical placements. The thrust of government health policy was behind the contextual development of the health care workforce; that practice-based learning should supersede classroom-based learning and that the health professions should focus on caring for and treating patients. Thus, opens the debate on the relationship of theory and practice which may impact directly on how the competence of the health care professional is judged and assessed (Ousey and Gallagher, 2007).

In their published debate, Ousey and Gallagher (2007) explore the relationship between theory and practice in nurse education. Ousey argues that the gap between theory and practice is essential for the professional development of nursing. However, the tensions that this creates between academics and practitioners can be used to partially explain some issues faced in the assessment of student nurse competence. The emphasis on *knowing* over *doing* (i.e. theory over practice) is thought to devalue the skills required for safe and effective patient care (Ousey and Gallagher, 2017; c.f. Department of Health, 2000). At the centre of many debates around the assessment of nursing competence is this polarisation of theory and practice which is created and perpetuated by a perceived separation of university-based and practice-based assessment (Bearman *et al.*, 2016). This has led Litchfield and Dempsey (2015) to call for a more authentic assessment process which centres on the professional role, in which the necessary underpinning theory is demonstrated through practice.

In terms of the registered health professions staffing the operating department, the expectation outlined by Debell and Branson has been met in part. In 2008 the Nursing and Midwifery Council (NMC) announced that nursing would move to graduate entry from 2013 (Debell and Branson, 2009) and, following suit, the College of Operating Department Practitioners (2011a) launched their degree-level curriculum document in 2011. However, the evidence supporting these developments still remains unclear. The need for high quality care in a dynamic

service environment is cited as the predominant reason for these changes (College of Operating Department Practitioners, 2011a; Nursing & Midwifery Council, 2015a), but the link between level of educational attainment and quality of care provision is yet to be established.

The lack of research supporting this so-called academicisation of the health professions is evident in the dearth of literature supporting the benefits of increasing entry level qualification on clinical practice. There is no relevant literature in relation to operating department practice which has led to a search of the literature from across the health professions such as nursing, physiotherapy and social work. Again, the literature accessed does not provide clear evidence of the benefits or otherwise of increasing entry level qualification. Therefore, the search has been widened further to include education literature to explore the benefits of higher education in relation to gaining employment, and also to look at the broader dimensions associated with human capital theory such as professionalisation, careership, gradueness, employability and the development of working relationships.

Grounding the academicisation of the health professions in human capital theory (Becker, 1993) provides a theoretical framework which may begin to explain the role of higher education qualifications in the delivery of high quality care in the operating department. Becker (1993) provides empirical evidence of a positive correlation between years in education, workforce productivity and earnings. In doing so he acknowledges a form of economic capital that runs alongside the physical capital (i.e. the capital tied up in physical resources such as specialist equipment) of the organisation. Becker argues that a major source of capital lies in the employees (human capital) and unlocking this latent potential is beneficial to the organisation and the employee. Human capital theory is based on a workforce that has progressed through primary and secondary education which provides the starting point for human capital development. The real benefits, according to Becker, lie in tertiary and higher education where the duration, level and relevance of study to employer needs allows employees to increase their earning potential. The remainder of this chapter will provide a critique of human capital theory and its broader

dimensions related to the policy changes in health care, with an exploration of the effects this may have on health professionals staffing the operating department.

2.2 Human Capital Theory and its Application to Healthcare

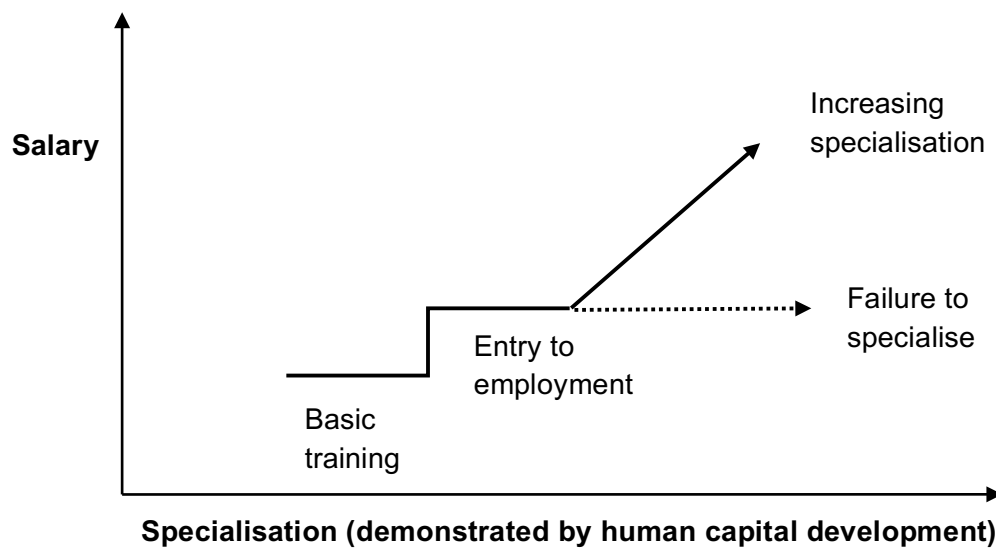
Becker's (1993) economic review of organisational performance and subsequent development of human capital theory is based on how quickly training costs are recovered by the organisation. He argues that if employees improve their productivity in a specialised area of production, an area that sets the organisation apart from their competitors, then the cost of specialist training is recouped quickly. This results in an increase in organisational profitability, and the employee reaps some of the rewards through an increase in salary. This argument applies to additional specialist training only. Becker (1993) argues that the cost of any generic preparation required for entry into the workforce should be borne by the individual worker. His argument for this lies in the possible loss of training costs by the organisation should the employee fail to complete, or decide to change employers on completion of their basic training. For this reason, employees participating in on-the-job training to perform their routine role should receive a lower income during their generic training period to offset their training costs. According to P. Brown (2001), the move to prominence of human capital development supersedes the traditional division of labour based on the Fordist and Taylorian notions of specialisation in one aspect of production which requires knowledge of only that part of the production process. In the context of organisational development, Fordism and Taylorism are linked to scientific management (Zinn and Brannon, 2014) where the efficiency of the workforce is improved by specialising in one aspect of productivity which is "controlled precisely enough to ensure predictable production outcomes regardless of other contextual variables" (Zinn and Brannon, 2014, p 75). In this case, the key to release of human capital lies in the development of these specialist skills subsequent to generic preparation for the work role. Becker and Murphy (1993, p 301) provide an example from the medical profession:

. . . a doctor who specializes in surgery is more productive than one who performs an occasional operation because surgical skills are honed by

operating, and because the specialist has greater incentive to invest in surgical knowledge.

In effect Becker (1993) and Becker and Murphy (1993) are proposing a linear model of progression based on increased specialisation to demonstrate a causal relationship between training/education and salary which is reflected in figure 2.1.

Figure 2.1: Relationship between human capital development and salary based on Becker's (1993) human capital theory



An interesting subtext to this analysis is that specialisation has two effects. First it reinforces the division of labour associated with Fordist productivity models. Specialisation facilitates the standardisation of work roles and the development of working protocols. In a healthcare context, this is reflected in the scope of practice developed for each section of the workforce which impacts on the structuring of the services delivered by the organisation (Farnsworth Mick and Shay, 2014). Second, it creates a monopolistic provision of service in which credentialised knowledge serves to reinforce the expert status of the practitioner in the eyes of the general public and the employing organisation (D. K. Brown, 2001). This is a dimension of human capital theory which will be discussed in more detail later in the chapter.

Specialisation, nevertheless, does have its limitations and this needs careful consideration in health care. Becker and Murphy (1993, p 308) go on to warn, “Modern expertise comes partly at the expense of narrowness, and of ignorance about what other people do”. This is particularly salient in the NHS where a number of differing professional groups contribute to the care of one patient. Issues surrounding ignorance of what other people do has resulted in an agenda for interprofessional education and working to facilitate better understanding of professional roles and responsibilities (Centre for the Advancement of Interprofessional Education, 2012).

Working in so-called professional silos has been a feature of inquiries into failing healthcare systems, most notably Mid Staffordshire NHS Foundation Trust (Francis, 2013). The report of the public inquiry into the events at Mid Staffordshire found systematic multi-agency/multi-professional failings where poor communication between health care regulators, professional bodies and the health professions themselves led to a catastrophic failure which allowed poor practice to develop unchallenged. The report was highly critical of the lack of interprofessional working, which led to gaps in service delivery when the patient was referred from the care of one professional group to another. To address the issue of working in professional isolation, regulatory bodies have introduced a requirement for interprofessional education where differing professional groups come together to learn with and from each other (Health and Care Professions Council, 2014b). The benefits of this lie in the development of a greater understanding of the differing professional roles and their boundaries and the opening of communication channels between professional groups. The result is an improvement in a profession’s practice to complement that of others (Barr and Low, 2011).

The preparation of specialist registered professionals for work in the operating department partially reflects Becker’s analysis of human capital. In the United Kingdom, Operating Department Practitioners (ODPs) and theatre nurses both undertake a generic preparation for their role and receive a remuneration package during training which offsets their training costs. One major difference between ODPs and nurses is that ODPs are trained specifically for work in the

operating department. Nurses undertake a branch specific preparation (e.g. adult, child, mental health) which develops specialist nursing skills in their chosen field. Nurses who then go on to take up a position in the operating department require additional, on-the-job training to develop the specialist skills required for this area of work in the form of a period of preceptorship.

Following Becker's analysis, this is a development of nursing human capital which should lead to enhanced productivity and salary. However, theatre work is considered a core part of business in the NHS and, as such, is comparable to working on the ward or in the emergency department. This is reflected in the salary structure of the NHS through Agenda for Change (The NHS Staff Council, 2012) in which salary is based on a knowledge and skills framework, job evaluation and terms and conditions of employment (Department of Health, 2004). The focus of the Knowledge and Skills Framework (KSF) is "on how people need to apply their knowledge and skills to meet the demands of work in the NHS" (Department of Health, 2004, p 5). In essence the KSF outlines competencies for performance at different levels of complexity which are allocated to a role. This is then used to develop a job description which is allocated a salary point on a common pay spine, thus producing a nationally consistent approach to role definition and salary. The establishment of operating department practice³ as a common professional entry point realigns current employment practice to Becker's human capital theory; the starting point for development of human capital commencing on employment in the practitioner's first post.

All healthcare registrants have a professional obligation to participate in continuing professional development (Health and Care Professions Council, 2011; Nursing and Midwifery Council, 2015b) and it is here that development of human capital in a Beckerian sense occurs. Part of this process may be in the form of additional specialist training which, according to Becker, will increase productivity and income. However, for this increased earning potential to be

³ Operating department practice is used as a generic term for the practices carried out by Operating Department Practitioners and theatre nurses.

realised, the individual will either be required to apply for a job at a higher grade or be required to undertake job re-evaluation against the Key Skills Framework in accordance with Agenda for Change (Department of Health, 2004).

Shipman and Hooten (2010) reflect on some of the realities associated with development of human capital and effects on salary in health care in the United States. Nursing care in the US is delivered by nurses prepared at two different academic levels: the Baccalaureate of Nursing Science (BSN) and the associate degree in nursing (ADN). The ADN programme provides a basic nurse training whereas the BSN includes a wider curriculum to include the humanities and development of graduate skills such as critical thinking.

Shipman and Hooten (2010) argue that the BSN provides the most suitable level of entry for nurses based on the increasing complexities of the nursing role. They propose that ADN nurses convert to BSN, but this is prohibitive due to the cost of conversion. They also report on research that suggests that conversion to BSN does not carry significant financial gain. Although Shipman and Hooten's analysis focuses on development at entry to the profession, parallels can be established with their UK counterparts. Many health professionals undertake additional training and therefore develop their human capital, but these developments may go unrewarded financially due to the constraints imposed by Agenda for Change. The potential results of this are a lack of motivation and lack of innovation on the part of the workforce which has a direct impact on standards of work (Francis, 2013). In the case of health care professionals, the potential for stagnation due to lack of opportunities for progression result in poor quality care and high attrition rates (Coombs *et al.*, 2010) which further affects the ability to provide a high quality service.

Linked with this is the approach taken to human capital development which may have a significant impact on the professional's motivation towards development. Becker illustrates this in his analysis, presenting egalitarian and elitist approaches to human capital development. The approaches can be viewed as two poles of a continuum on which organisations and governments determine education policy based on the strength of their economy.

2.2.1 Egalitarian and elitist approaches to human capital development

Becker (1993) posits two diametrically opposed positions on the development of human capital: the egalitarian and elite approaches. The egalitarian approach assumes that everyone has “. . . the same capacity to benefit from investment in human capital” (p 120); the position adopted by New Labour in their education policies from 1997 – 2010. The elite approach to investment in human capital is based on the assumption that there exists an equal opportunity to participate in human capital, but the actual participation rate is determined by the individual's capacity to fund and benefit from their development (Becker 1993). This latter approach creates a social stratification which becomes self-perpetuating where those that have the means to invest in their human capital development benefit personally but also pass this benefit on to their immediate family:

The higher earning of, say, college graduates compared to high-school graduates are partly due to the college graduate's greater ability, ambition, health, and better educated and more successful parents (Becker 1983, p 7).

Educational policy of the Labour government (1997–2010) was characterised by mass higher education (schools of nursing and operating department practice moved from their hospital bases into higher education during this period) based on the rhetoric of the high skills economy (Jones, 2010). This egalitarian approach to human capital development and the subsequent attempt at closure of the academic/vocational divide through links between further and higher education and industry were paramount in maintaining the UK's global economic competitiveness (Avis, 2004). Avis goes on to suggest that developing knowledge of work and work-based practices in students allows them to modify and adapt to suit changes in the working environment as new technologies evolve. He contends that disciplinary-based knowledge does not respond quickly enough as it is seated in academia which shields it from changes in the workplace. This is supported by Dafou (2009, pp 95–96) who argues:

Employees believe that studying a subject relevant to an occupational area, graduates gain familiarity with the practical problems that they may encounter in the workplace, and are sensitised to the particular occupational culture.

The resultant inclusion into higher education of the apprenticeship-style preparation for the health professions provides a best of both worlds approach where academia and knowledge of the world of work are combined in one educational programme. Immersion in clinical practice is a key feature of all pre-registration health profession programmes with students spending at least 50% of their training in clinical placements to gain experience of the occupational culture.

However, tensions arise when programmes that are perceived as being vocational are situated in the world of academia; in particular, around the routes of access into higher education. To support their educational aspiration that 50% of all 19–30 year-old enter higher education by 2010, New Labour introduced their Widening Participation strategy (Department for Education and Skills, 2006). The aim of the strategy is fair and equitable access to higher education, focusing on inclusion of students from “. . . under-represented groups, particularly low socio-economic groups, to participate successfully in higher education” (Department for Education and Skills, 2006, p 3). The key aim of this strategy is the inclusion in higher education of students from under-represented groups only if they have the ability to study at this level.

Robinson *et al.* (2003) reflect on the issues surrounding recruitment to nursing experienced in the 1980s that resonate strongly with the widening participation strategy. An open access policy was introduced in the 1980s to counter the lack of recruitment to nursing from their traditional pool of recruits which was formed by female school leavers. The rationale presented by the nursing regulatory body was based on a recruitment strategy that attempted to reflect the make-up of society in terms of gender, age and ethnicity. Part of the selection process reflected Becker's egalitarian concept of human capital development in that recruitment strategies were aimed at “. . . men, mature students, those with higher academic qualifications and those *without formal academic qualifications*” (UKCC, 1987 cited in Robinson *et al.*, 2003, p9, my emphasis). In adopting this approach, it is assumed that all applicants have the potential to benefit from investment in their human capital.

This also reflects the recruitment of Operating Department Practitioners whose origins lie in the Guilds (qualification accredited by City & Guilds) and National Vocational Qualification pathways where a philosophy of open access was actively promoted. This position is clearly incongruent with an elitist conceptualisation of higher education where entry is based in the achievement of formal academic qualifications (i.e. A Levels) as a gold standard (Hodgson and Spours, 2010). The challenge for the nursing and ODP professions is to reconcile their egalitarian approach to access to initial professional preparation with the requirements of entry to higher education, and the widening participation strategy provided a means of achieving this.

2.2.2 The egalitarian/elite continuum

Synthesis of Becker's two perspectives to form a continuum can help to see how different approaches to human capital development are taken depending on the state of a nation's economy. Egalitarian and elitist approaches can be placed as the two poles of the continuum, with education policy in a state of flux moving between the two. When economies are underperforming or during times of economic crisis, the amount of money allocated to training and development is reduced and policy moves towards an elitist approach. As economies recover and move into prosperity, policy swings back towards egalitarian approaches to ensure supply of an adequately qualified workforce. However, there comes a point where policy is firmly lodged between the two, and this appears to be the situation in health education at present. Egalitarianism is actively pursued in the developments of entry criteria that reflect traditional educational ability measures (e.g. GCSEs, A Levels), but also consider non-traditional qualifications such as access courses to demonstrate inclusion as a result of widening participation (Department of Health, 2013a). However, applicants are being prepared for induction into an elitist profession based in higher education, so only those that meet the required minimum university or professional entry criteria are granted access. Therefore, selection for initial training must be based on an assessment of the individual's ability to meet a minimum standard which is shifting as the professions become academicised.

The rhetoric emanating from the educational policy of successive governments is that there is a positive correlation between levels of education and earning potential (Department for Business Innovation and Skills, 2016) based on the development of human capital. Increasing the level of professional entry for ODPs and nurses from diploma to degree should therefore increase earning potential at the point of registration.

2.2.3 Criticisms of Human Capital Theory

Criticisms of Beckerian human capital theory are based around policy decisions regarding funding for education and the lack of consideration for the individual worker. Killeen *et al.* (1999) argue that countries with more successful economies invest more in compulsory and post-compulsory education (i.e. move towards an egalitarian approach to human capital development). A logical extension of this argument is that as the economy expands and profitability is increased, organisations and nations have more income at their disposal to invest in developing their workforce. At the same time there is opportunity to invest in technological developments further enhancing productivity. Thus there is a symbiotic relationship between education and a nation's wealth; the more advanced and profitable industry becomes, the greater the need for a well-educated workforce, reinforcing Killeen *et al.*'s (1999) contention that increased funding for education is a direct result of economic success rather than acting as a contributor to it.

The generic nature of human capital theory and its focus on the organisation in Becker's thesis forms the basis of Fuller's (2001) criticisms. For Fuller, the lack of consideration for the individual worker and their motivation to participate in developing their human capital is a major omission from Becker's work. Fuller's argument is partly consistent with that of Bowles and Gintis (1975) who suggest that there are a number of external influences on organisational performance that are not considered in human capital theory. If the employee does commit to developing their human capital, there is an inherent danger that the education programme followed may not necessarily produce the skills and knowledge required by the employer, which then has little or no impact on productivity. With

this in mind, Becker's thesis fails as the employer's investment in the employee may not be recouped.

This critique is supported by P. Brown (2001), who reviews the issues from a workforce analysis perspective which focuses on a model of demand and supply. The demand side of the model is characterised by workforce need (i.e. the need for a particular type of worker with a specific skill and knowledge base). The supply side is characterised by the specific attributes of the employee. Maintaining productivity levels is simply a matter of balancing supply and demand. However, P. Brown introduces a sinister aspect to the process of matching supply and demand which focuses on supply characteristics such as gender, ethnicity and socioeconomic status. He follows Bowles and Gintis' (1975) line of argument that organisations need to maintain their profitability and one way of doing this is to suppress the wages of employees by employing those from a lower socioeconomic status or from those groups of society who will accept a lower wage out of necessity.

P. Brown (2001) also cites the motivation of the individual worker to involve themselves in development as a major factor in the supply and demand model. There is an experiential element to development of human capital, but an individual must be motivated to capitalise on their development. Tranquillo and Stecker (2016) review the impact of motivational forces on an individual's participation in continuing professional development activities. They use Gagne and Deci's (2005) self-determination theory to suggest an interplay between external and internal motivation, to explain how externally imposed motivating factors can undermine internal motivation. For example, if completion of a training programme is said to lead to promotion, but the individual sees promotion as unattainable due to organisational constraints, then their internal motivation is affected.

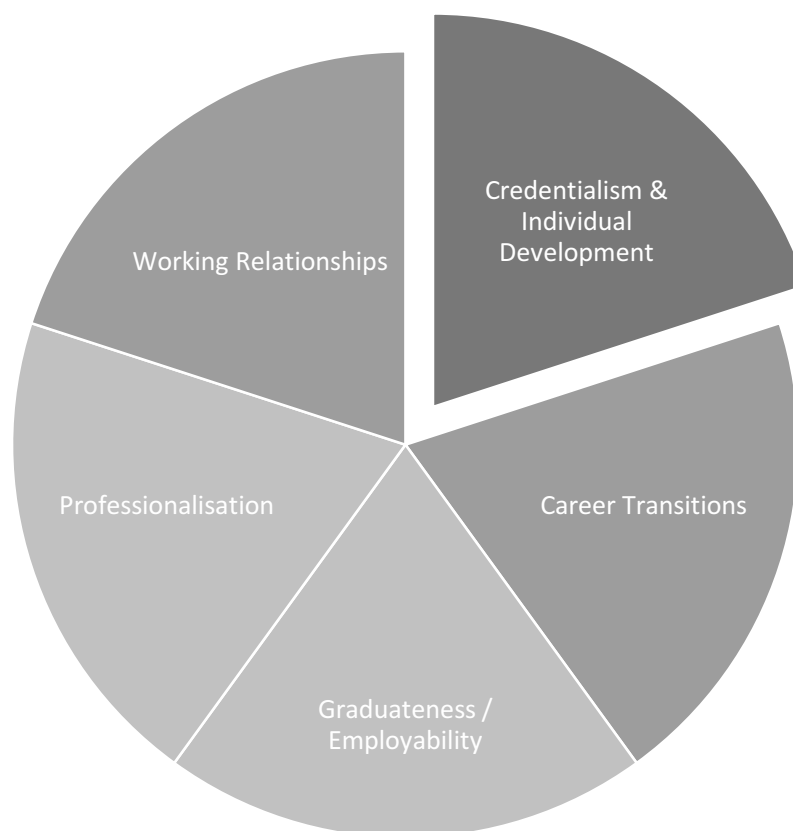
Tied up within this are a number of socio-cultural factors relating to educational attainment, social capital and a willingness to participate. Taking this critique one step further, Becker's original conceptualisation of human capital development makes no reference to the development of a sub-group of society

in the form of professionalisation. Specialisation through developing human capital, as argued earlier, results in the development of a core body of workers with enhanced skills and knowledge. As discussed later in this chapter, this is the first stage of the process of professionalisation (Larson, 1977).

It is evident that human capital theory as Becker presents it requires further development and refinement to accommodate the multiple dimensions involved in professionalisation, professional development and subsequent academicisation. One area that authors agree on is that as economies expand and introduce new technologies, there is an associated increase in new knowledge (e.g. P. Brown, 2001; K. Roberts, 2009). The increase in knowledge results in an expansion of the education sector resulting in a competitive market for employment where entry to occupations is based on formally certificated educational achievement (D. K. Brown, 2001).

The preceding critique has demonstrated that human capital development is not a simple, linear process. Instead it is a multi-dimensional concept that requires expansion to demonstrate the individual, organisational and professional needs of the workforce. It is clear why Beckerian human capital theory provides a persuasive discourse on which to build educational policy, but its one-dimensionality that provides its strength is also its flaw. The remainder of this chapter will present human capital as a multi-dimensional concept (see figure 2.2) in which individual development forms one of five dimensions that interplay throughout an individual's career development; the others being careership and career transitions; graduateness and employability; professionalisation leading to monopolistic service provision; and development of social capital in the form of the working relationships developed within the organisation.

Figure 2.2: The dimensions of human capital



2.3 Credentialism as a Measure of Individual Development

Becker bases human capital theory on the development of the individual with a resultant beneficial impact on productivity. An alternative to this argument is that as technological innovations are brought into the workplace, employees are required to develop to meet the changing demands placed upon them. One means of measuring individual development is the achievement of a credentialised award, i.e. completion of a certificated programme of study. Here, a measure of individual development can be based on a known entity provided by the curriculum and pre-determined methods of assessment. Furthermore, the accreditation of credentialised awards by professional bodies adds kudos to the process. It is in this context that credentialism as a measure of individual development will be discussed as a dimension of human capital development.

Credentialism has entered health care discourse as links are made between the level of education attainment of health care professionals and standards of care. In nursing, justifications for the increase in entry level to the professional register are based on the rhetoric surrounding a reconceptualisation of quality of care:

. . . a shift to the concept **of quality of care** has led to a breakthrough in our ability to measure and to link nurse practice to patient outcome. And quality of care is a key argument behind the current determination to move to a graduate workforce. (Debell and Branson, 2009, p554, emphasis original).

This is supported by the nursing professional and regulatory body, the Nursing and Midwifery Council (2010b, p 6) who state: "The NMC and many others believe that nurses educated to degree level will be able to provide better care". The implication of these statements is that there is a direct link between standards of care or performance and level of the professional academic credential. This policy statement is based on the work in the United States by Aiken *et al.* (2003) who claim to provide a significant positive correlation between patient mortality and the professional academic credential held by the nurse. However, their failure to isolate a number of potentially confounding variables makes their analysis unsound. For example, the experience of the nurse is not considered by Aiken *et al.* to play any part in their ability in identifying a deterioration in their patient's condition (see section 2.3.1.3 for further discussion). Therefore, the main body of evidence on which nursing educational policy is based is inconclusive, but a wider search of education-related literature does demonstrate how academic credentials are used by employers as a mechanism for screening their future workforce.

Employers appear to be comfortable in using academic credentials as part of their recruitment processes as they are based on known entity (Killeen *et al.*, 1999). For example, a degree is clearly linked to national benchmark statements which outline the graduate characteristics developed by the graduate. The response of the potential workforce is to position themselves for entry to employment by obtaining the requisite credentials (Brooks and Everett, 2009). However, before this aspect of credentialism is analysed further it is

necessary to review the origins of credentialing theory and reflect on its link to human capital theory.

D. K. Brown (2001) credits Weber with the development of credentialing theory based on his analysis of the Confucian education system. The focus on mastery of an esoteric body of knowledge provides a form of educational capital that can be traded for entry into an elitist community where remuneration is based on academic achievement rather than technical knowledge (D. K. Brown, 2001).

This is a view supported by Collins (cited in Walters, 2004, p 103):

[Collins (1979)] also maintained that education would allow people to purchase more desirable occupational positions, while at the same time, those in elite occupations were able to control the requirements for admission to specific professional programs in such a way as to maintain their dominant status.

In essence, credentialised programmes of study provide a currency which provides a disposable income in the employment market. Analogous with personal finances, the higher the value of the credentialised award, the more one can purchase and the greater the value of that purchase to the individual. This individual development with resultant financial gain is the fundamental tenet of human capital theory. However, consideration must be made of Becker's egalitarian and elitist perspectives. As argued earlier, the egalitarian perspective is pursued by government through their widening participation strategies; a policy taken up by the Department of Health (2013a) in their Education Outcomes Framework. Yet, widespread achievement of higher education credentials may not provide the outcomes desired as Dore (1997) posits.

The effects of credentialism are explored by Dore (1997) where he coins the phrase *Diploma Disease*. Dore encapsulates his definition of the Diploma Disease as an education system that is designed to encourage learning for the sake of certification rather than for gaining knowledge. He argues that an exponential increase in knowledge leads to an education system based on learning facts which are then reproduced during assessment with scant regard for the application of knowledge in a work-based context. This learning is

credentialised by certification which provides an indication of ability used by employers as a screening mechanism for their workforce (Killeen *et al.*, 1999). In the case of health professionals, academic credentials also provide a route of entry into the world of professional practice.

The focus on entry level qualifications at all levels of the education system leads to a number of wide ranging effects. First, a desire is created to learn the test or to teach to the test (Dore, 1997). Due to competition for access to education, particularly tertiary and higher education in the UK, there is a drive to meet entry criteria. This increased competition stresses the need to cram to learn key facts to reproduce in formal assessments. In Beckerian terms this creates an elitist approach to human capital development where this system favours those who have high socioeconomic status, who are best positioned to take advantage of education via their ability to pay for the associated tuition. This is tempered by the egalitarian nature of public policy through initiatives such as widening participation which broadens the range of credentialised awards to allow students to meet entry criteria by non-traditional methods:

. . . it is the destinations, not the routes, which matter and no amount of pious handwringing is likely to distort the messages sent from the 'real world' of work concerning the relative rankings of occupations and, therefore, of the credentials used by employers to allocate people to them (Killeen *et al.*, 1999, p 100).

Fuller (2001) provides an example of the uptake of the foundation degree which was introduced as part of widening participation strategies to encourage disadvantaged groups into higher education. Linked to employment, foundation degrees are viewed as a route into higher education, providing a progression to degree level study. Although employer led, foundation degrees, are nothing more than a higher education diploma, but the terminology used shows this to be classic credentialism: the foundation degree becomes a more attractive proposition to students than a diploma due to the connotations associated with the term degree in the title.

This creates educational tensions on two fronts. First is the open access nature of foundations degrees, where entry to a programme of study is related to the

student's role in an organisation. Students accessing other forms of undergraduate study may be subject to screening by their ability to gain credentialised awards as evidence of their ability to study academic higher education awards. Second, the threshold entry level to some professions (including ODP) is set at diploma in higher education. This is granted the same academic outcomes as foundation degree in the higher education qualifications framework (Quality Assurance Agency, 2014).

The model of health professional education clearly follows that of apprenticeship where registered practitioners support the development of the student and a large proportion of the award (at least 50%) is based in the work place, learning from more experienced practitioners. However, the perception that apprenticeships are firmly based in vocational education and training schemes associated with Further Education colleges precludes consideration of this title in health professions' education which is now firmly entrenched in higher education. The preferred title of Diploma (Higher Education) is used to denote the conferment of an academic award alongside a professional qualification to add gravitas to the title of the credential. The importance of achievement of a known and universally accepted credential is evident when considering the consequences of credentialism in creating academic inflation.

2.3.1 Academic inflation

Dore (1997) argues that as more people access higher education and more qualifications (e.g. degrees) are awarded academic inflation is created. This occurs when a surplus of degree holders is created for a finite number of graduate jobs. Using P. Brown's (2001) supply and demand model, supply outstrips demand. As degree level education is deemed desirable by employers, the surplus degree holders are taken into occupations for which diploma or certificate level entry was the norm. The possession of a degree now becomes an essential requirement for the lower-level job, resulting in an inflated entry level (Wolbers, 2003). Wolbers develops the argument further to suggest that if there is an over-supply of well or appropriately qualified personnel, they may be drawn to and employed in work in a related field. This is reflected in the

NHS when recruiting personnel for work in the operating department where there is an imbalance between supply and demand. In this situation, managers employ personnel with an equivalent, or higher, academic level of qualification thereby widening their recruitment pool to both ODPs and nurses. Although recent nursing policy has seen the introduction of graduate entry, their employer has to invest in further training and development to enable the nurse to develop the occupationally relevant skills which allows them to perform their role in the operating department.

Credentialism is not just an issue for the demand side of the workforce planning model. As the need to possess credentialised awards is reinforced by employers the effects impact on the student body. This is illustrated by Brooks and Everett (2009) in their study of graduate perceptions of the values of their degree. Four themes emerged from this study relating to the utilisation and perceptions of academic credentials by employers and students. Each of these themes is discussed in detail below.

2.3.1.1 Credentialism as a means for screening employees

According to Brooks and Everett (2009), degrees are used by employers as a means of screening prospective employees. This is further reflected by Killeen *et al.* (1999, p101)

In its most extreme and consciously ideal-typical form, 'screening' can be held to imply that qualifications provide valid information to employers about characteristics of the individual to which education does not contribute; education is, in effect, reduced to a process of assessment.

The graduates interviewed by Brooks and Everett (2009) viewed their degree as a bare minimum that would allow them access to lower-level employment and entry into work. This is supported by the findings of Mok, Wen and Dale (2016) who suggest that academic inflation created by mass higher education devalues the academic currency of the credential. Thus the employer will focus on the applicants' work skills as a key determinant of suitability for employment. This position is reflected in the allied health professions who are required to demonstrate a minimum level of educational attainment to provide eligibility to

apply for professional registration and thus gain employment. However, the possession of a credentialised award gives very little indication of the individual's ability to perform in their professional role and takes no account of the informal learning that inevitably accompanies their development. This is an aspect of credentialism picked up on by Livingstone (1997) who uses computer literacy as an example of an area where the skills gap between peoples' knowledge of the technology and work based expectations is closing. With the increased availability of technology for home use, Livingstone argues that employees are more familiar with the technologies used in the workplace and require less specialist training in these areas of work.

Increased use of technology in the workplace is often used as an argument for increasing academic entry levels (e.g. Nursing and Midwifery Council, 2010b). However, as with computing, the general availability of technology results in a paradigm shift in people's pre-work knowledge. Use of technology becomes the norm but the basic work role around this is unaltered. For example, an administrator would still take notes and type letters even though the technology by which this job would be completed has changed significantly in the last 10-20 years. In the health care environment, the fundamental needs of the patient remain, but it appears that the higher-level activities associated with modern, technological nursing practice draw the professional away from servicing the patient's basic needs (Maatta, 2006). This has resulted in the Department of Health refocusing on basic nursing practice and care provision in their call for a return to the 6 Cs of Care, Compassion, Competence, Communication, Courage and Commitment (Department of Health, 2012) which must now form the central thrust of pre-registration health curricula.

It would appear that academicisation of the health professions and a rebasing of the pre-registration curriculum to focus on aspects of fundamental care are creating a gap between the expectations of educators and employers. Mok, Wen and Dale (2016) review the effects of this credential gap where there is a mismatch between the level of qualification requested by the employer and the level of performance required by the job. This is an aspect of current health educational policy that could create dissatisfaction in the work force as

highlighted by Robinson *et al.* (2003) in their comparison of diploma and degree level nurses.

In terms of job satisfaction Robinson *et al.* (2003) discovered that both diplomate and graduate nurses rated pay in relation to level of responsibility as the major cause of dissatisfaction. This was closely followed by the low frequency of discussions about career development. The reasons for this are not explored further but the associated discussion resonates with the notion of a credential gap. Robinson *et al.* measured the job satisfaction levels of diplomate and degree level nurses at 6, 18 and 36 months' post-registration:

While measurement at six months revealed little difference between levels of overall satisfaction, with graduates being slightly more satisfied than diplomates, at 18 months a stronger difference emerged of graduates being more dissatisfied than diplomates. This latter difference was more marked again at three years after qualification (Robinson *et al.* 2003, p 110).

The satisfaction expressed by the newly qualified nurses in the Robinson *et al.* (2003) study is attributed to high levels of motivation associated with entry into their chosen professional field. The dissatisfaction of degree-level nurses at 36 months relates to a perception of lack of career progression and poor remuneration for the level of work performed. To understand this further one has to investigate the purpose of entry-level qualifications (in Robinson *et al.*, the diploma and degree pathways in nursing). This issue may be further compounded in the ODP and nursing professions where, on qualification, graduate nurses and diplomate ODPs enter the salary scale at the same point.

Bisholt (2012) argues that, at the level of professional entry, newly qualified nurses do not possess sufficient clinical skills and their body of professional knowledge is lacking, thus reflecting the nature of pre-registration training. Health care students are allocated to a range of clinical placements during their training to gain experience and develop competence as measured against a range of pre-determined standards (Nursing and Midwifery Council, 2010a; Health and Care Professions Council, 2014b). The range of placements experienced give students a taster of professional practice, where a core body

of skills and knowledge can be developed with a focus on meeting professional entry-level standards. The wider skills required for employment and development of higher-level skills and knowledge result from experiential learning and participation in continuing professional development.

The initial period of employment for newly qualified health professions is characterised by consolidation of their skills and knowledge and development of relevant employment skills as an extension to their initial preparation (Bisholt, 2012). The need for nurses to take on additional preparation for their role on employment emerges in an independent review into nursing clinical placements commissioned by the Royal College of Nursing. This is as a direct response to criticism of nursing practice from the Francis Inquiry (Willis Commission, 2012). The Willis report goes to great lengths to stress that newly qualified nurses “are not the finished article” (Willis Commission, 2012, p5). Instead they have developed a set of core skills, knowledge and values that can be used to progress their future career.

When post-qualifying experience is combined with continuing professional development a transition is made from a level relating to Benner’s (2001) advanced novice/competence to expert in their chosen field. However, herein lies a problem. Willis is critical of nursing on two fronts. First is an unrealistic expectation associated with the role of the newly qualified nurse. It is evident from the data collected by Willis that qualification as a nurse and subsequent entry to the professional register is considered by some as an end point. In other words, newly qualified nurses are expected to perform to the same level of expertise as their more experienced colleagues. This is clearly unrealistic as their exposure to clinical situations has been limited by their clinical practice experiences in training. Second is the lack of structured continuing professional development. Willis bemoans the fact that post-registration nursing career pathways are, at best, haphazard. So, as this critique shows, academic credentials can be used as a useful indicator that a potential employee has mastered a specific body of knowledge. However, although these applicants have the requisite disciplinary knowledge there is still a need for them to develop knowledge of work-based practices as alluded to by Avis (2004).

2.3.1.2 The need for graduates to develop employment skills

The second emergent theme from Brooks and Everett's (2009) study is that graduates expressed the need for consolidation of their degree in the workplace to develop the competences required for their job role. The implication is that degree level study alone does not prepare graduates for the world of work and that their studies have to be supplemented by gaining entry-level employment or by completing additional, extra-curricular activities to gain the relevant work experience. Tomlinson (2007) reported similar findings in establishing a typology of graduate orientations towards work.

In Tomlinson's study, students approaching graduation acknowledge that their degree is no longer a guarantee to a high paid career. Instead he found that they fall into one of three categories which reflect their approach to work. Some graduates are prepared to start their career at the lowest point and climb the corporate ladder until they work their way into their pre-determined position within a company. Others view work as a means to survive and fund their lifestyle. Related to this is a group that are not interested in their career and may take time out to pursue other goals. One would expect that health care students would acknowledge that they are required to enter the organisation at a point commensurate with their professional entry qualification and limited experience. They then progress their career depending on their personal preferences.

However, the transition from supervised student to autonomous practitioner is fraught with difficulty. This is highlighted by Robinson and Garton (2008) who contend that, on entry to employment, graduates focus on the technical skills of their academic discipline rather than the work skills that employers want. Wolbers (2003) suggests that the inclusion of a work-based element into the award can significantly reduce this mismatch between the academic curriculum and the work place. As health-related preparation for practice has a significant amount of work-based learning, one would expect that health care professionals would develop both graduate and employment characteristics. The resulting professional should then fit seamlessly into their chosen area of practice.

Why then does the Willis Commission (2012) claim that newly qualified nurses are not the finished article? To answer this, one has to review the curricula of the various health professions and acknowledge that their scope of practice is so broad that, during the training period students are introduced only to key underpinning concepts. To take Operating Department Practitioners as an example, their Scope of Practice (College of Operating Department Practitioners, 2009) extends across a minimum of 3 core areas: anaesthesia, surgery and post-anaesthetic care. Over the two years of their training students have access to seven periods of clinical practice⁴, during which the student must develop competence in the 3 core areas across a range of surgical specialities. Added to this there is also a requirement for students to practise in emergency and critical care areas as a pre-requisite for professional registration (Health and Care Professions Council, 2014a). Nursing curricula may not include a theatre-based experience in their training. Therefore, on entry to employment as a newly qualified health professional, there is a period of preceptorship available to help the practitioner to make the transition from student to autonomous professional.

Preceptorship is defined by the Department of Health (2010c, p 11) as:

a period of structured transition for the newly registered practitioner during which he or she will be supported by a preceptor [an experienced, registered practitioner], to develop their confidence as an autonomous professional, refine skills, values and behaviours and to continue on their journey of life-long learning.

It is characterised by a period of supported practice where the newly qualified professional is inducted into their new role over a period of 6–12 months. The key benefit to the preceptee is identified as the engagement in a positive relationship with the organisation and a socialisation into the working environment (Department of Health, 2010c).

⁴ The delivery pattern cited reflects that of the author's employing institution. The number of clinical placements offered to student ODPs by other institutions may vary in number and duration.

2.3.1.3 Degree classification and academic inflation

The third and fourth themes from Brooks and Everett's (2009) study are interlinked. The third theme relates to degree classification and the fourth links this to academic inflation which is created by the ever-increasing requirement to gain a higher academic credential. Although a degree may be identified as the basic minimum for entry to work, some graduates in Brooks and Everett's study claimed that the classification of degree is *the* important screening criterion for employers. Many students went on to complete additional study to demonstrate their academic prowess if they fell short of a good degree (i.e. a first or 2:1 classification).

Participants in a study conducted by Tomlinson (2008) also acknowledged that anything below a 2:1 classification would be potentially worthless in terms of academic credential. As the jobs market is flooded with graduates, employers' cherry pick those with the best academic credentials as an indicator of their ability to perform in the workplace. As the health professions move towards graduate entry, it will be interesting to see how degree classifications impact on the selection of newly qualified practitioners. There is evidence from the teaching profession to suggest students with a first class or 2:1 degree are more likely to become teachers than students with lower classifications (Department for Education, 2013). It will be interesting to see if the health professions follow suit.

Related to this is the prospect that academic inflation is created by mass higher education resulting in employers focusing on the higher degree classifications and possibly introducing higher degrees as the screening criterion for entry into employment. This inflationary view of education has fuelled criticism of the academicisation of health awards from Vince Cable, former Secretary of State for Business, Innovation and Skills, who argues that degrees are superfluous to many jobs (Paton, 2013). Cable specifically focuses on nursing and the police force in response to the introduction of graduate entry nursing and the fast-tracking of graduates into senior ranks in the police force:

The idea that in order to be a police officer or a nurse you have to have a degree, I mean, that is just qualification inflation. There may be some

qualitative improvement associated with it, but arguably not. I think in a way we have passed that barrier; it's very difficult to 'de-graduate' a lot of the big professions of that kind (Cable cited by Paton, 2013).

Cable goes on to point out that for a “whole lot of fairly standard professions – not elite professions – a degree is a basic qualification” (Cable cited by Paton, 2013). This traditionalist view that mass higher education is devaluing graduate status has led to a strong response from the former Chair of the Council of Deans for Health (Ellis, 2013). In his rebuttal, Ellis makes reference to the international RN4CAST study of nurses which is based around the initial research conducted in the United States by Aiken *et al.* (2003). In this research Aiken *et al.* claim that there is a statistically significant decrease in patient mortality if there is a low nurse to patient ratio and if the nurses hold higher level qualifications. Ellis uses this data and similar data which he suggests comes from the RN4CAST project as evidence for the need to move to graduate entry in nursing. However, close review of these studies indicates that the data may not be as conclusive as Ellis claims.

Aiken *et al.* (2003) do conclude that there are positive effects for the patient linked to staff to patient ratio and the level of academic qualification held by nurses. It is claimed that these two variables combined has a significant positive impact on patient mortality. However, closer review of the analysis raises questions about their collection and treatment of the data surrounding academic qualification. In this study Aiken *et al.* only collect data relating to the nurses' highest academic award which is not necessarily related to their professional entry-level award. Linked with this is a lack of satisfactory explanation relating to the experience of the nurses which could be measured as time served in their role thus undermining their conclusion that “Nurses' years of experience were not found to be a significant predictor of mortality or failure to rescue in the full models” (Aiken *et al.*, 2003 p1620).

In terms of their analysis, Aiken *et al.* have missed the alternate explanation of their data that the nurses in their study may have completed their degree post-qualification after gaining a cadre of clinical experiences. Exposure to the

clinical area and rehearsal of clinical observation of their patients may have been a significant contributory factor in these nurses' ability to interpret data about their patient's condition and spot the early-warning signs of deterioration.

Ellis (2013) suggests that similar findings are presented in the RN4CAST, a study of the efficacy of nursing in 15 countries. However, in the final report of the UK study (Ball *et al.*, 2012), no evidence is provided of any correlation between level of academic award and patient outcome. Of the 2990 respondents to their survey only 23% held an honours degree and, again, it is unclear whether this was gained pre- or post-registration. However, in this study, Ball *et al.* are careful about how their findings are presented and the claims they make. This study does not link educational attainment with quality patient care. Instead they focus on the staff to patient ratio on the ward as a major determinant in the early identification and treatment of patient deterioration.

It is evident from the literature critiqued in this section that academic credentials are perceived as an important factor in employment by employers and employees. However, it is still unclear what role the academic level of the qualification plays in determining the ability of the employee to perform their day-to-day work duties. What is evident is that achievement of credentialised awards becomes a significant factor for young people making the transition from school into work or higher education and for individuals in plotting their career trajectories. As discussed earlier in this chapter, credentialised awards are becoming increasingly significant in the professional development of the health professionals. It is the dimension of transition pathways and careership and the role academic qualifications play in this that the discourse moves to.

2.4 Transition Pathways and Careership

Transition pathways and careership reflect a person's transition from school into work or further/higher education and their subsequent employment and individual career progression (Furlong, 2009). A traditional conceptualisation of transition and careership follows an individual through compulsory schooling

that prepares them for the world of work, to gaining employment which may or may not be associated with training, and then to their subsequent progression route. Strauss (1962) uses the metaphor of climbing the career ladder to describe this progression. He goes on to point out that an individual's career pathway may not conform strictly to a linear progression and that it could involve taking a step backwards to a lower grade in a related field in order to progress, or may involve a complete career change. Therefore, when critiquing transition pathways, it is important to explore the influences that lead to individual choice. However, before the analysis progresses there is an important point to be made about the terminology used to describe the transition.

Many authors use the phrase 'career trajectory' (see Furlong, 2009). Furlong takes issue with this and is particularly critical of the use of the term 'trajectory' for describing the future intentions of individuals. He argues that this term is bound by social class and cultural capital and, to a large extent, is out of the control of the individual. Furlong's argument builds on that of Hodkinson and Sparks (1997 p38) who are also critical of the use of the term trajectory and maintain that:

'Career trajectory' implies a subtle determinism about choices made and that the pathways embarked upon are somehow set and predictable.

As an alternative, Furlong looks into the use of the term 'navigation' which provides some individualisation to the process where the individual uses their judgement and life skills to negotiate their transition. A 'navigated career pathway' acknowledges that an individual's transition is constrained by their position in society and is influenced by their social capital in terms of family and wider social relationships. Use of this term implies that the individual assumes responsibility and accountability for their career choices. Although this position is qualified by reference to examples of alternative career pathways that are not predetermined and linear, one has to acknowledge that navigation includes elements of pre-planning and predictability and this too proves to be an unsatisfactory term.

Hodkinson and Sparks (1997) develop Strauss's (1962) thesis by referring to career transitions as turning points, thus encompassing the unpredictability associated with an individual's career pathway. These turning points may push an individual in linear fashion up a career ladder, or may require the individual to take stock of their situation and change career course. It is through the discourse surrounding turning points that potential explanations for career choice and progression in the operating department can be explored in the form of career pathways.

2.4.1 Career pathways and turning points

Returning to the analysis of transitions into education and work as the first point on a career pathway, it is important to determine the factors influencing individuals' decisions. In terms of entry to the health professions, particularly nursing, Larsen, McGill and Palmer (2003) refer to an internal calling that leads individuals into a profession, very much like the calling to religion. In their study of entry to the nursing profession in the United States, they identified two clear factors for wanting to become a nurse. The first presents nursing as a vocation as applicants to the profession reported "a calling" (p 170). The other predominant reason was "the desire to help and care for others" (p 171) which presents nursing as a caring, compassionate profession.

However, this notion of nursing as an altruistic profession has been severely tested by their progression into higher education. The "uncoupling of education and practice" (O'Driscoll, Allan and Smith, 2010, p 216) created by the professional transition from hospital-based schools of nursing to higher education has had a significant impact on the reasons applicants choose nursing as a profession. This theme appears in an earlier study conducted by Cutcliffe and Wieck (2008) who present a number of trade-offs that have to be considered with the continuing professionalisation nursing. One theme in their study is the trade-off between nursing as a vocation and nursing as a means for financial gain. Their view is that the professionalisation and subsequent academicisation of nursing is a significant threat to the traditional Nightingalean values of providing comfort, compassion and care. This is an aspect of

professionalisation taken up by Maatta (2006) who suggests that as nursing moves towards legitimisation as an academic discipline, the distance between the nurse and their client group is increasingly taking them away from their core function of delivering direct patient care. In terms of the future nursing and other allied health professions' workforce, this suggests that potential applicants are now focusing on academic credentials as a means of accelerated career progression, rather than viewing delivery of health care as a vocation.

Alongside this shift in the role of the registered nurse, there is also a concern over the motives of those entering the profession. As entry criteria are increased to attract applicants with the requisite academic credentials and, by implication, academic abilities, nursing is moving towards an elitist model of human capital development. There is concern that those who view nursing as a vocation, but who may not have the appropriate academic background are excluded from the profession in favour of applicants who want to progress their academic profile (Cutcliffe and Wieck, 2008).

Although this analysis focuses on the nursing profession, the issues identified are equally pertinent to the ODP profession as applicants are drawn from a similar pool as nursing, and the issues surrounding professionalisation and academicisation are mirrored. There are also similarities in career progression for ODPs and nurses working in the operating department. Progression into professional training is clearly articulated in both professions, but career progression once qualified is a very different matter. The lack of clarity of career pathways associated with professional development and progression places career developments as a matter of an individual's motivation to progress (Willis Commission, 2012). It is here where the determinants of an individual's career progression can be examined in the form of turning points (Strauss, 1962).

2.4.1.1 Career turning points

For Strauss (1962) career turning points are created as an individual develops by gaining new knowledge and encountering new experiences that shape the way in which they engage with society. The individual's career pathway can still

be mapped by reflecting on key experiences or turning points that are the result of the individual's internalisation of these stimuli. Strauss offers a typology of turning points and their associated characteristics which are demonstrated in figure 2.3.

Figure 2.3: Strauss's (1962) typology of turning points and their associated characteristics

Typology	Characteristics
Milestones	The change remains unnoticed until the individual returns to the former position. Here the individual development becomes clearly evident.
Forecasting	Akin to mapping a career trajectory. The individual plots their course and follows a pre-determined path to reach their objective.
Private proclamation to a public audience	The individual states their revised position and actively pursues their goal. This includes rite of passage (a ceremonial proclamation, Strauss, 1962, p 69) where the individual completes a professional examination to achieve entry into the profession.
Serendipity	Happenstance pushes the individual along a particular career pathway (e.g. taking on a managerial role). The individual either performs well or makes a decision relating to their future role (i.e. to pursue a management career or not) or doesn't perform well and makes an alternative decision.
Regularized Status-Passage	Individuals pass through a linear organisational structure to gain promotion

The lack of any structured post-registration pathway for allied health professionals places the emphasis on the individual to determine their career pathway. Whilst some professionals use milestones and forecasting approaches associated with personal development planning, for some others career developments are serendipitous. However, whilst individual choice is an integral part of Strauss's typologies, the individual still has to work within a set of external parameters and this is where increasing entry level to the health professions has its effect. The external factors influencing transitions from education to work have been explored by K. Roberts (2009) and Smith (2009). K. Roberts reviews the differences in transition routes between the 1950s and 60s and sets them against those evident in the first decade of the 21st century. The major theme is that, as the UK economy has moved from low to high skills,

there has been a corresponding shift in socio-economic status; a transition from approximately two thirds of the population identified as working class in manual labour, to a position where approximately 40% of the population are deemed lower class. This shift has seen a widening of the middle-class status with a resultant increase in expectation of better educational development.

K. Roberts (2009) refers to this as socio-educational upgrading which he aligns to classic academic inflation:

The pace at which young people have improved their qualifications has raced ahead of occupational upgrading, and an outcome is that qualifications at all levels have been devalued in terms of the labour market returns that their holders can expect. A job that was once within the reach of a school-leaver with A-levels is now likely to require a university degree. A-levels can now be demanded for entry to jobs for which GCSEs were once sufficient (K. Roberts, 2009, p 359).

This is an observation that resonates strongly within the health professions, where the entry levels for access to pre-registration Operating Department Practice education have increased from open access, to 5 GCSE passes, to a Universities and Colleges Admissions Service (UCAS) tariff level equating at least to two A level passes in a little over 10 years⁵.

Smith's (2009) analysis develops that of K. Roberts and brings the discourse back to focus on human capital development. Smith presents an analysis of workers' transitions within the first 10 years of their employment. His findings suggest that socioeconomic status is the major determinant in career pathways with those entering high-skills occupations maintaining their positions, and a lack of mobility associated with those entering low-skilled occupations. He also found that there are limited opportunities to enter low-skilled occupations which is an issue for a number of young people from lower socioeconomic backgrounds. This is particularly evident now in the health professions as entry requirements are increased in the name of professional development and

⁵ The entry criteria cited reflect those of the author's employing institution for entry to the Diploma (HE) Operating Department Practice award.

upskilling, marginalising a number of potential recruits who do not hold the requisite academic credentials for entry to professional training.

The government plan to improve transition from Health Care Assistant to registered practitioner grades, but the question remains how this will be achieved without increasing the entry criteria for the Health Care Assistant role in order to provide the requisite entry criteria for professional training. However, for Smith (2009), the continued upskilling and associated transition to higher-level occupations has a limited life span. He argues that as all the higher-level roles are accounted for a saturation point is reached that blocks progression for others. This is an issue that is yet to be considered in the health professions.

One essential area of transition from pre-registration health education to work surrounds the fitness to practise of the newly qualified professional. This is developed in conjunction with academic skills throughout their period of university-based preparation. Employers are concerned that too much focus on the academic detracts from the ability to provide quality basic patient care (Maatta 2006). Thus a debate is created surrounding the development of academic ability, or gradueness, over the need to be employable on completion of the initial training period.

2.5 Gradueness and Employability

Issues surrounding gradueness and employability have been introduced earlier in the chapter (see sections 2.3.1.1 – 2.3.1.3). Here, the discourse will be developed further, providing working definitions of the terms ‘gradueness’ and ‘employability’ and reviewing how these two concepts have been brought together into one coherent framework.

In essence, the terms gradueness and employability serve to provide a differentiation between the academic and vocational. As noted in sections 2.3.1.1 – 2.3.1.3 of this chapter, discipline-based knowledge is only one characteristic required of the workforce of a high skills economy. The other main characteristic is work-based knowledge. Steur, Jansen and Hofman (2011)

bring some clarity to the distinction between gradueness and employability. They define gradueness as “. . . a specific outcome of academic intellectual development” (Steur, Jansen and Hofman, 2011, p 41) and argue that there is a clear distinction to be made between academic competence (gradueness) and employability skills. This position supports the division made between gradueness and employability by Glover, Law and Youngman (2002, p 294) who define gradueness as “. . . the effect on knowledge, skills and attitudes, of having undertaken an undergraduate degree” and employability as “. . . enhanced capacity to secure employment”. They go on to acknowledge that the gap between gradueness and employability is closing as higher education develops to include more vocationally relevant programmes of study. Indeed, this is evident in the education of the health professions where employability and gradueness are combined to form the concept of fitness to practise (Health and Care Professions Council, 2015; Nursing & Midwifery Council, 2015a).

Robinson and Garton (2008) stress the importance of preparation for work as a key element of gradueness and this is echoed in the respective professional standards for practice devised by the Nursing and Midwifery Council (2010a) and Health and Care Professions Council (2014b). Robinson and Garton identify problem solving, effective communication, team working, thinking critically and interpersonal skills as those most desired by employers. Inherent in this are the core technical skills and knowledge on which the job role is based. Sirca *et al.* (2006) discuss how the use of the Dublin First Cycle Descriptors, originating from the Bologna Process, pull the two concepts together. The First Cycle Descriptors, shown in figure 2.4, provide Europe-wide accepted standards for higher education where gradueness includes both academic and employment aspects. Each professional award based in higher education is aligned to these descriptors via reference to the Framework for Higher Education Qualifications which forms the basis of the Quality Code (Quality Assurance Agency, 2014).

Figure 2.4: Dublin first cycle descriptors from Sirca et al. (2006)

- Knowledge and understanding of field of study.
- Application of knowledge and understanding, demonstrating a professional approach to work.
- Devising & sustaining arguments and solving problems.
- Collection & interpretation data to formulate judgements.
- Reflection on relevant social, scientific and ethical issues.
- Communication of information, ideas, problems and solutions to specialist and non-specialist audiences
- Participation in continuing professional development.

However, Williams (2009) presents some serious concerns associated with the academicisation of social work, suggesting that graduate social workers may not be adequately prepared for professional practice. Williams identifies three key themes which impact on a Social Worker's fitness to practise. The first theme surrounds the difficulties experienced in securing an adequate range of practical experiences during initial training. As identified repeatedly in this literature review, access to a suitable range of clinical experiences is essential in the development of the health care professional. However, lack of suitable placement opportunities serves as a barrier to developing the contextualised, work-based knowledge leaving newly qualified practitioners ill-prepared for their role.

The second concern Williams (2009) raises is a variance in academic standards between universities, suggesting that students who are academically weak, and some who may present a danger to patients/clients are being allowed to progress through their award. No further evidence is provided by Williams but this may relate to the phenomenon of grade inflation investigated by Bachan (2015). Bachan's study examines the increase in the award of good degrees (in this case taken to be first class or 2:1) and presents two possible explanations that may support Williams' claim. One possibility put forward by Bachan is leniency in marking which is associated with curriculum changes and increasing variance in methods of assessment within one award. Another possibility put forward by Bachan (2015, p 13) is that universities may be "lowering standards

to attract fee-paying students". Whatever the reason, it appears that Williams is indicating a failure in the quality assurance and professional regulation mechanisms, another aspect considered by Bachan.

The third issue that Williams (2009) raises is that students are poorly prepared for degree level study on entry to their pre-registration, under-graduate award. Again no further exploration of this issue is proffered, but this could relate to widening participation strategies and the recruitment of students with non-traditional qualifications who may experience difficulties with the transition to formal academic study.

Despite Williams' reservations, the perceived benefits of graduate level entry to nursing have driven the implementation of graduate entry forward. The rhetoric around improved quality of care (Burke and Harris, 2000; Nursing and Midwifery Council, 2010b), the need for enhancement in the level of skills and knowledge required to deliver high standards of care (Cockayne, Davis and Kenyon, 2007) and the need to participate in clinical decision making (Burke and Harris, 2000) provide persuasive arguments for this move. However, evidence to support the benefits of academicisation to graduate entry is sparse. Robinson *et al.* (2003) make a direct comparison between the clinical competencies displayed by diploma- and graduate-entry nurses and conclude: "The dominant finding is that the course type alone has little impact upon the competencies of nurses within the first three years after qualification" (Robinson *et al.*, 2003, p 128). A similar conclusion was drawn by Moriarty *et al.* (2010) in their review of the introduction of the degree in social work.

D. Roberts (2009) articulates the uncertainties over what constitutes gradueness and employability in nursing suggesting that divergent views exist between regulatory bodies and employers. Regulatory bodies produce the minimum standard of proficiency for entry to the profession, but D. Roberts suggests that employers want more than the minimum, and identifies a range of advanced skills (e.g. defibrillation, electrocardiography) that employers deem essential for their workforce. In her discussion D. Roberts notes the dichotomy between employers' desire for newly qualified nurses to hold these advanced

skills and their reticence in allowing students to participate in these activities to develop their skills and knowledge. A further observation made by D. Roberts is that the increased breadth of subject matter covered in modern pre-registration programmes of study casts doubt on the amount of professionally useful knowledge taken into clinical practice by the student.

However, Swindells and Willmott (2003, p1103) conclude “. . . degree education adds value to practice”. Their review of the differences in clinical abilities between degree- and diploma-level nurses contrasts with that of Robinson *et al.*'s (2003), finding that graduates performed significantly better in the areas of cognitive ability, reflective practice and professional practice (Swindells and Willmott, 2003). This ties in with Becker's human capital theory showing a relationship between duration of education and ability to perform in an occupational role, but presents no explanation of how performance differences are observed at the point of qualification. Cotterill-Walker (2012) draws conclusions similar to those of Swindells and Willmott from her review of the effects of master's level study at post-registration. Key themes identified from this review are improvements in the nurse's effectiveness in time management, critical thinking and understanding and application of scientific principles underpinning their practice. Cotterill-Walker appears to have missed a major determinant of clinical effectiveness from her discussions; that of number of years' experience of the nurse, as Dreyfus and Dreyfus (1986, p 8, my emphasis) observe

. . . human decision-making was an inscrutable business, a mysterious blending of careful analysis, intuition, and the wisdom and judgement *distilled from experience*.

If one accepts that gradueness accounts for a significant difference in level of ability between diploma and degree entry professionals, even though the evidence to support this is scarce, then employers have some very important questions to answer regarding the composition of their workforce. A key feature of their workforce planning activities will be to determine whether registered professionals will move into areas of advanced practice based on their increased academic credentials and, more importantly, who fills the gap left by

the new breed of advanced practitioner. The latter is a question raised by Cockayne, Davis and Kenyon (2007) who suggest that this role will be taken on by care assistants who will undertake a period of credentialised training for this role. This is an issue not lost on Law and Aranda (2010) who review the shift in role of Health Care Assistants and Associate Practitioners to fill the void left by the expanding role of the nurse and maintain that:

. . . patients' basic care needs remain unchanged; however, who meets those needs and how these needs are met, has changed (Law & Aranda, 2010, p 545).

It is apparent that developments in the care delivered by health care workers is driven by identified gaps in service delivery created by new ways of working. As the medical profession loosens its grasp on lower-level activities, the nursing profession are moving to incorporate these into their role. Likewise, as nursing loosens its grasp on associated lower-level activities, a new breed of health care worker is developing to take these on. This potential paradigm shift in the work of health professionals leads the discussion into the next theme: that of professionalisation.

2.6 The Professionalisation of Operating Department Practice

As the evidence presented to support the academicisation of operating department practice from a clinical/patient care perspective is inconclusive, the move to all graduate entry for ODPs and nurses could be construed as the final act in the professionalisation of these occupations (Larson, 1977). In her seminal text, Larson charts the development of the professions from mediaeval times to the mid twentieth century. Larson's analysis accounts for the power of the medical profession, reviewing the historical struggle between physicians and lower order medical practitioners until the regulation of medical practitioners produced a fusion of the various aspects of medicine. Larson explores the role of education in strengthening medicine's monopoly on healing and cites the move into university as the key to the perpetuation of professional knowledge and ideology:

Entry into university gives any profession a core of educators; because of the university's apparent universalism and independence from lay

demands and private interests, these educators are in the best position to defend the universalistic guarantees of professional competence and to legitimize the professionals' claim of autonomy and monopoly (Larson, 1977, p34).

This, along with the development of professional organisations, ensures a closed-shop approach where the profession determines the level of access to their training programmes; develops the curriculum and assesses the ability of students to meet a predetermined standard of attainment; defines the parameters for entry to the professional organisation; and takes responsibility for the on-going development and regulation of the profession.

Illich (1977) is critical of the incestuous nature of professional self-regulation, but agrees that this places some professions in a very powerful position. He argues that, by a process of specialisation, professions create a need in society for which a professional service can be sold. Once the profession is legitimised, through the processes discussed by Larson, the lay public are obliged to use their service, and the profession remains resistant to external influences. For example, Illich (1977) suggests that the professionalisation of medicine breeds illness as the lay public now have a focal point for reporting their ailments. He goes on to discuss how professionalisation of the legal system creates a dependence on lawyers to act on behalf of the public to resolve disputes.

Thus professionalisation in this sense takes on a form of public duplicity where "The easiest way to create a monopoly is to invent a language and procedure which will be unintelligible to the layman" (Caplan, 1977, p93). An interesting point developed by Illich *et al.* (1977) is that as the professions receive legitimacy through their monopoly of service delivery, they inculcate all areas of society including the political arena. From this position they can influence policy to perpetuate their high standing and levels of expertise whereby Colleges (some receiving Royal ascent) are created to advise governments. Both medicine and nursing have representatives in influential positions to advise government on health-related issues in the appointments of a Chief Medical Officer and Chief Nursing Officer.

The parallels with the nursing and ODP professions are clear in that justification of their professional status is served by claims of autonomy and high standards of care delivered by specialist practitioners (Nursing and Midwifery Council, 2010b; College of Operating Department Practitioners, 2011b). However, these claims may not be as strong as the nursing and ODP professions think. The term 'professions allied to medicine' suggests a professional hierarchy in which medicine is clearly regarded as having the greatest influence. Larson (1977, p 37) cites the work of Friedson who argues:

. . . the status of profession is relative to that of other occupations and inseparable from the subordination to professional dominance in a structured work setting.

The professional dominance of medicine is created by its primary role in diagnosis and treatment of disease based on a distinct body of knowledge developed by medical professionals. Yam (2004) picks up on this, describing nursing as a semi-profession. Based on a review of literature surrounding professionalisation, Yam identifies professional traits and claims that nursing (and arguably other professions allied to medicine) falls short in that there is no distinct body of knowledge. Instead nursing and the other allied health professions draw on the body of knowledge developed by medicine. Although the allied health professions' roles are expanding to meet service needs (Department of Health, 2008; Department of Health, 2010b), in the context of operating department practice it still remains the medical practitioner who determines the most appropriate course of action. Thus, the medical profession has a degree of influence over the roles and education of the allied health professions.

The relative weakness of the new professions can be related to their work in a bureaucratic organisation (Colyer, 2004). In an age of managerialism where job roles are pre-defined and the organisation is judged on its ability to meet predetermined standards, health professionals find themselves in a position of compliance. Organisational terms and conditions of employment and working policies provide standardised work roles against which performance can be measured. In Colyer's words:

Arguably, the new health professions have less power than the traditional ones, since a modernized, managed service seeks to reduce the power of its professional employees, standardizing their work and opening it up to greater scrutiny (Colyer, 2004, p 408).

This is a theme that is evident in Timmons's (2011) analysis of the development of the ODP profession. Timmons concludes that for the smaller, weaker professions (such as ODP), professionalisation amounts to nothing more than regulation. His observation is based on analysis of the discourse emanating from the ODP professional body (then referred to as the Association of ODPs), suggesting the wide-ranging benefits of professional registration as the final step towards professionalisation. However, a number of these benefits have not been realised as the ODP profession does not pose any real threat to the dominant medical profession as the work of the ODP is directed by medics who exercise a level of control over ODPs. Timmons also reflects on the professional tensions between nurses and ODPs in the operating department, where ODPs are struggling to find professional legitimacy based, partly, on their failure to monopolise service delivery.

Colyer (2004) goes on to provide insight into professional progression to advanced clinical roles where higher-level requirements and professional autonomy in terms of clinical decision making arguably reside. In her review, Colyer is critical of the functionalist approach taken in the development of advanced clinical competences. Instead she feels that the advanced practitioner grade is a stop-gap designed to cover recruitment shortages in other professions, notably medicine.

Colyer goes on to argue that a functionalist approach to advanced practice, based on development of advanced clinical skills and leadership, is self-limiting and she draws on the work of Manley to promote an advanced practitioner who enables and advances others, challenges and stimulates and is consistent and trustworthy. The functionalist approach to advanced practice provides a practitioner who has increased their level of competence which is assessed by ticking off the skills and knowledge as they are gained. Colyer warns of the inherent danger in this ". . . since it appears to reduce the expertise needed to

manage complex care situations to a series of tasks for completion” (Colyer, 2004, p 411). She goes on to claim that this reductionist approach to practice undermines the nursing profession’s ideological approaches to care giving.

The discourse surrounding professionalisation focuses on clinical ability and the application of a known professional body of knowledge to a range of clinical situations. The lack of research and research-based roles within the university setting are implicit in the failure of the nursing and ODP professions to achieve academic legitimacy (Logan, Gallimore and Jordan, 2016). Thompson (2009) has gone as far as to suggest the vulnerability of nursing as an academic discipline due to the focus on training for competence which is associated with vocationalism.

2.6.1 The potential for development of Associate Practitioners

Legitimising a profession’s position through credentialism and movement into advanced practice has additional dangers. Colyer (2004) reports on the 1996 publication *The Future Health Care Workforce* which “. . . accused the health care professions of being overspecialized and compartmentalized and suggested, among other things, that vocationally-educated carers could do the same job as nurses” (Health Services Management Unit cited in Coyler, 2004, p 409). This is supported by Cockayne, Davis and Kenyon (2007) who argue that the move to graduate entry in nursing has established a concern that graduate nurses will want to focus on advanced clinical roles leaving gaps in service delivery. The five year forward review (NHS England, 2014) supports modernisation of ways of working but, in a subtle shift in discourse, fails to mention specific professional groups. Instead, there is a generic pledge to support staff development and to recruit to areas of occupational shortage with the onus placed on employers to recruit the staff who have the most appropriate skills and knowledge to deliver the service. This point has not been missed by NHS trusts who have been engaged in a period of developing vocationally-educated Associate Practitioner grades via a higher apprenticeship programme.

An area that is currently causing debate in the operating department is the use of Associate Practitioners to scrub for elective procedures. The scrub role in the operating department requires the practitioner to account for all surgical items (e.g. swabs, needles and instruments) and to anticipate the needs of the surgical team so that all items/equipment are available when required. This role usually falls within the remit of the theatre nurse or ODP. The major concern expressed by registrant ODPs and nurses relates to lines of accountability in the operating department (Law & Aranda, 2010). The argument follows the lines that the registered professional in charge of the department remains accountable for the delivery of safe and effective practice, and automatically assumes accountability for the actions of non-registered practitioners. This relates directly to Larson's (1977) argument that once legitimised the professions assume control over weaker occupational groups. It is also a feature of clinical practice reported on by Law and Aranda (2010, p545):

There seems to be a dichotomy, in that nurses wish to extend their roles, often roles passed down from the medical profession, such as prescribing and cannulation, or mimicking the medical profession with the nurse 'consultant' title and, at the same time, delegating their 'dirty work' to less qualified staff. Yet they still appear to be threatened when this delegated work may be 'lost' forever to health care assistants and assistant and associate practitioners.

The registered professionals in charge of the operating department also appear to have overlooked their professional obligation to ensure that any delegated tasks are carried out by suitably competent personnel (Health and Care Professions Council, 2012; Nursing and Midwifery Council, 2015a) and that the trust's vicarious liability provision covers the associate practitioner's actions whilst working within the terms and conditions of their pre-determined role.

Concerns have been expressed regarding the standards of vocational style training. The main thrust of these concerns relates to the superficial nature of training programmes which, it is suggested, focus on assessment of observable skills with little consideration for developing an underpinning knowledge of the subject (e.g. Wolf, 2002). The argument levelled at the Associate Practitioner role in theatre relates to the unpredictability of the service delivered. It is not

uncommon for a straight-forward, elective procedure to develop into a more complex procedure which the Associate Practitioner may not be able to assist with due to their lack of training and experience.

The whole argument smacks of professional protectionism as it appears that the registered health professions in the operating department are entering an era of uncertainty. It looks like the professions will use their registered status as a means to justify their dominant position and social standing in the operating department based on their position in the organisational hierarchy. Again, Wolf's (2002) analysis of vocational education resonates in the current climate:

Vocational education instead refers to courses for young people which are offered as a *lower-prestige alternative to academic* secondary schooling, and which lead to manual, craft and, more recently, secretarial jobs (Wolf 2002, p 58, my emphasis).

Development of social standing and improved working relationships proves to be the major driving forces behind the academicisation of operating department practice. Equality of status with other health professions enabling involvement with clinical decision making appear as justifications for degree level entry to nursing throughout the literature (Burke and Harris, 2000; Cockayne, Davis and Kenyon, 2007; Nursing and Midwifery Council, 2010b). It is here that an alternative view to the professionalisation process provided by Larson (1977) can be presented. Instead of professionals developing independently in linear fashion, each professional group exists within a professional market-place, competing for attention. If one of the professional groups develops and extends its services as a result of this (e.g. graduate entry leading to an increased scope of practice), that serves as the impetus for counter-development in another professional group as a means of maintaining their competitiveness in the market-place.

2.6.2 Professionalisation and the Red Queen Hypothesis

The Red Queen hypothesis was developed by van Valen in 1973 as a means of explaining the coevolution of species; an addition to Darwin's theory of natural selection (Easton, 2007). It has since been used in organisational and, to a

limited extent, in educational contexts to examine organisational development and educational attainment (e.g. Barnett and Hansen, 1996; Doyle, 2006; Easton, 2007). The premise on which the Red Queen hypothesis is based is that of running twice as fast, just to keep up (Doyle, 2006) and is taken from Lewis Carroll's *Alice Through the Looking Glass* as explained by Easton, 2007, p. 171):

. . . the Red Queen interrupts the conversation to grab Alice by the hand and start running at breakneck pace. After some minutes of sprinting, Alice notes with wonder that they are still in the same spot. Nothing unusual, the Red Queen remarks dryly; in her country 'it takes all the running you can do to keep in the same place'.

In an organisational sense, the analogy to the Red Queen explains a response in relation to developments in competitor productivity. Barnett and Hansen (1996) reflect on organisational interactions showing that developments in one organisation leads to learning and development in another; the second organisation, in effect, working (running) as fast as it can to remain in the market. Doyle (2006) places this into an educational context to show how nation states invest in education to maintain and improve their position in a high skills global economy by producing a highly educated population to support this.

In terms of professionalisation, a similar phenomenon could be in operation. One profession moves to graduate entry and it becomes incumbent on other, related, professions to place their energy in to making a case for similar status. The consequence of not pursuing this agenda, maladaptation, serves as a hindrance to professional development leading to these professions missing out on the benefits associated with the evolutionary shift. In effect, a developmental move by one profession stimulates the others to run as fast as they can only to maintain their current position.

A necessary part of organisational growth discussed above is the development of the workforce, and it is here where the link between the red queen hypothesis and human capital theory becomes evident. Becker's (1993) thesis reflects an evolutionary shift in productivity based on specialisation of sections of the workforce and development of workforce practices. The evolving increase in

productivity places the organisation in a much stronger position than their competitors. As alluded to above, competing organisations move to similarly increase their productivity through development of the workforce in specialist areas of production, and this is achieved by developing human capital. Thus, human capital development serves as the evolutionary drive which maintains a company's competitiveness. However, the focus here is on the organisation which resonates with the criticisms of human capital theory presented by Fuller (2001), as discussed earlier in the chapter (p 34).

In health care the stimulus for professional evolution is the need to have appropriately qualified practitioners in key areas of service delivery. The workforce shortages alluded to earlier in this Chapter serve as a means for professions to broaden their scope of professional practice and perform duties for which further education is required. As with organisational development, the professions vie with each other to stake their claim on the provision of services based on the benefits of improved productivity (in the case of health care direct patient care) and the increasing complexities associated with delivering the service (patients living longer, with a range of co-morbidities and technological development). There are also opportunities for new service providers to enter the market to provide a specific product, such as the move to develop the Band 4 Associate Practitioner workforce.

One of the major themes in the rationale for the move to graduate entry for nursing lies in the development of professional relationships and improved communication between professional groups with similar educational credentials (Debell and Branson 2009). Here the Red Queen hypothesis takes on the widely known phenomenon of keeping up with the Joneses where a profession's credibility is questioned if it fails to adapt to the evolutionary shift. This potentially impacts on the ability of professions to interact due to the perceived inequalities associated with the status attached to academic credentials.

2.7 Working Relationships in the Operating Department

The pursuit of equal status with other health care professionals, the need to be involved in clinical decision making, and legitimisation of nursing's position in higher education have been identified as the key driving forces for an all graduate profession (Burke and Harris, 2000). The ODP profession intends to follow suit providing a similar justification for the move (College of Operating Department Practitioners, 2011b). However, acknowledgement of the role of the workplace as a social environment based around social networks and transfer of knowledge are often overlooked in the Beckerian human capital development model. Bowles and Gintis (1975) argue that human capital development is not an individual pursuit and their viewpoint gains support in the literature surrounding social capital development, where the links between extended social networks and human capital development abound (e.g. Field, 2008). Therefore, the final dimension of the multi-dimensional critique of human capital theory is the development of working relationships based on increasing one's organisational social capital.

Leana and van Buren (1999, p. 540) define organisational social capital as
a resource reflecting the character of social relations within the organization, realized through members' levels of collective goal orientation and shared trust.

This definition is reflected in the Department of Health's (2010c) Preceptorship Framework for newly qualified health professions where professional socialisation into the working environment is identified as a key benefit for the practitioner. One of the elements of the preceptorship programme is "access support in embedding the values and expectations of the profession" (Department of Health, 2010c, p 13) thus developing a collective goal orientation and shared trust.

Development of social networks within the organisation aids the development of a set of norms and sanctions accepted by the local society (i.e., the workforce) which builds trust (Schuller and Field, 1998). This suggests that trust is an experiential phenomenon based on inter-personal interactions and

relationships. A natural extension of this is that the more diverse an individual's social network, the greater the trust placed in the individual. This is borne out in a study by Lin and Huang (2005) who provide empirical evidence to support the theory that it is an individual's centrality in social networks that serves as a mediator for career mobility rather than high stocks of human capital.

Lin and Huang conducted their analysis of career mobility by asking managers who were the most likely of their workforce to gain promotion. When this data was analysed in conjunction with data regarding the social network and human capital of the individual, evidence was found to support the theory that those that are best connected are best positioned for promotion. Thus, it is not necessarily what you know, in terms of credentialised human capital that is important in career mobility, but who you know (see also Field, 2008). That is not to completely discount human capital as a determinant of career mobility, but Lin and Huang discovered that those employees with a good stock of human capital who remained on the periphery of organisational social networks, were least considered for promotion.

However, social capital refers to the sanctions and norms accepted by a society, suggesting that this is based on mutual trust (Halpern, 2005). This is an interesting point as one of the justifications for moving to degree-entry nursing is a greater ability to participate in clinical decision making. The implication here is that if nurses hold a higher-level qualification they are more likely to be accepted and trusted as peers rather than taking on the role of subservient in a professional hierarchy. Nursing and ODP professions could argue that they are pursuing a common good in improving patient care (cf. Coleman, 1988). However, there is a large portion of self-interest here based in the rhetoric of health reforms which state that doctors and nurses will be at the forefront of healthcare developments (e.g. Department of Health, 2010a). The suggested equal status of these professions is taken as additional evidence of the need for nurses to move towards legitimacy as an academic discipline.

Organisational social capital has another dimension, particularly in the delivery of health care. Although good working relationships are integral to high quality

patient care, shared trust is based on an individual practitioner's clinical competence. Clinical competence is determined by efficiency with which the practitioner responds to a given clinical situation and is underpinned by an extensive body of professional knowledge. Therefore, those practitioners that use their learning most effectively become trusted and respected members of a multi-disciplinary team. This follows the discourse of Debell and Branson (2009) who suggest that raising the academic credential for nursing will improve clinical competence. In reviewing organisational social capital in the health services, a consideration has to be made to the link between human capital and social capital, as discussed below.

Some authors (e.g. Felicio, Couto and Caiado, 2014) suggest human capital and social capital are inextricably linked, and a virtuous cycle exists between the two. In this model stocks of human capital are used as brokerage to gain access to social or organisational networks, which in turn leads to knowledge exchange and development of human capital which can be used to further develop social capital. There appears clear intent in the ODP and nursing professions to use their higher academic credential to influence their relationships with other professional groups to advance their social status in the health service (cf. Moriarty *et al.*, 2010). Utilisation of their professional body of knowledge may extend their scope of professional practice into other areas of care as practitioners move into advanced practice roles.

Whilst, in theory, development of social capital should enhance patient care through the development of effective interprofessional working, in practice the reality is very different. A major finding from the Francis Report into the failings in Mid-Staffordshire NHS Foundation Trust (Francis, 2013) was a distinct lack of inter-professional co-operation with each group working in its own professional silo. This supports the findings of Cunningham *et al.* (2011) who performed a world-wide systematic review of published, peer-reviewed literature on the impact of professional and social networks on the quality of health care. From the body of literature relating to acute and critical care settings, they found that professional groups communicate with and seek advice from others within their profession, a phenomenon they refer to as 'homophily'. They argue that to

overcome this, agents are required to bridge the gap between professional groups. This is reinforced by Read (2014) whose systematic review of organisational social capital in nursing concludes with an acknowledgement that social capital extends beyond intra-professional boundaries and incorporates the whole of the multi-disciplinary team involved in the care of the patient.

The Department of Health (2013b) are challenging the traditional methods of workforce planning and professional development by calling for training to be delivered in multi-disciplinary groups and not just multi-professional groups. This is a fundamental shift in the nature of training to acknowledge that practice-based activities are not performed in professional silos, but tasks are shared or delegated to a range of team members, and all of these team members need skills and knowledge to be able to perform care duties. Thus the workforce naturally builds social networks which may make patient care more effective due to the knowledge gained of individual roles and the best person to refer the patient to so that they receive a care or treatment intervention delivered by the best qualified person to offer this.

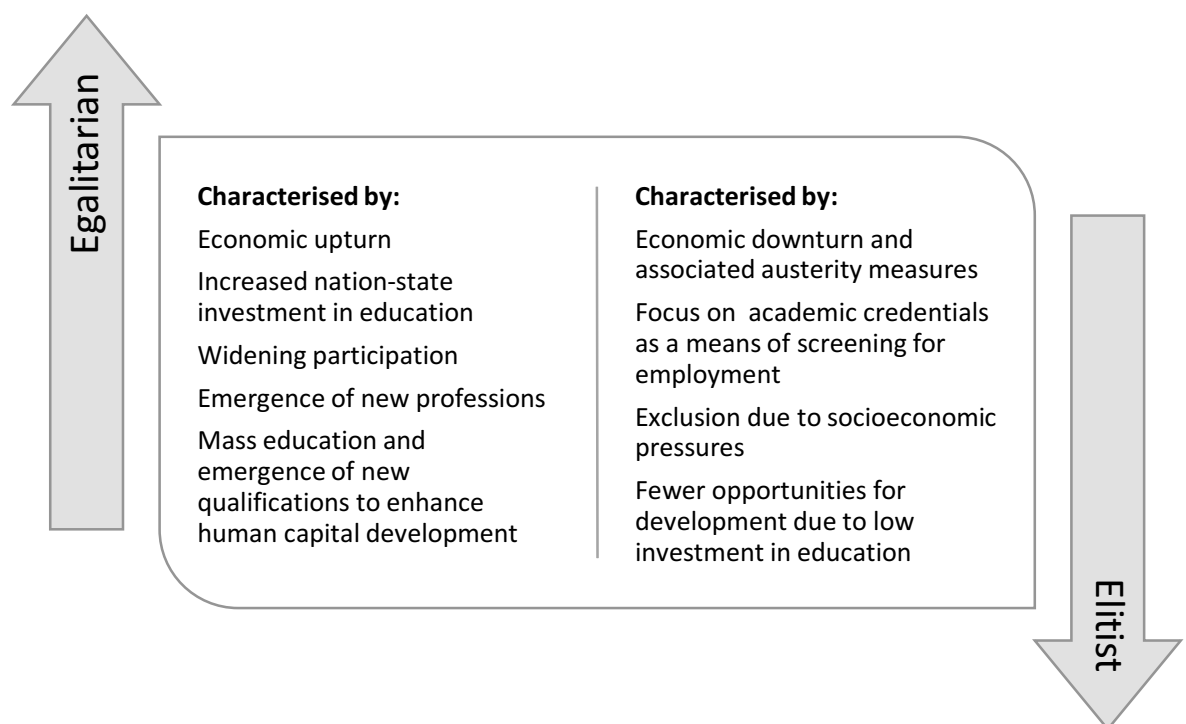
2.8 A Revised Model of Human Capital

The discourse to date provides a critique and application of various dimensions associated with human capital development, and thus develops Becker's (1993) original linear conception of the correlation between qualifications and earning potential. The relationship of each dimension to human capital development is not necessarily reciprocal and two or more dimensions may act concurrently in the development of human capital. The revised model also takes account of Becker's elitist and egalitarian approaches to human capital development by suggesting that the economic performance of a nation state directly impacts on this via educational policy. Figure 2.5 provides a schematic of these relationships.

When economies are performing well human capital moves towards egalitarian approaches characterised by mass education and a relaxing of academic credentials. Via widening participation strategies, individuals are drawn in to

education and more qualifications are awarded as a result of this. This is a point in time where groups of the workforce can consolidate a monopoly of service provision which will be reinforced by the introduction of a period of learning to enhance professionalisation. During this phase the monopolistic group can charge premium rates for their service thereby creating a degree of financial security.

Figure 2.5: Relationship between elitist and egalitarian models of human capital



Conversely, during times of economic downturn, there is a swing back towards elitist approaches where those with the ability to take advantage of an increasingly credentialised market secure employment and thus maintain their financial stability. The austerity measures introduced by the coalition government in response to the UK's position in the global financial crisis reflect a move towards a more elitist approach to higher education. The introduction of an increase to tuition fees and the decision from the Conservative government's Comprehensive Spending Review to withdraw financial support for some healthcare students through the NHS bursaries system (Department of Health, 2015) further reinforces this position. This, in turn, may exclude individuals from

participating in education due to socioeconomic pressures and the potential academic inflation created during more prosperous times, where the entry credentials for employment have been increased due to an over-production of, for example, degree holders during periods of mass education.

It is within this multi-dimensional model that this study takes place. The study will examine Becker's original conception in the context of operating department practice, focusing on the registrant theatre workforce. The career pathways of these personnel will be reviewed to determine the influences on individual careers and this will be linked to social and pre-existing human capital. Finally, the impact of academic level of study on the individual will be investigated from a career perspective; looking at fitness to practise on entry to the chosen profession and continuing professional development. To focus the study on each of these dimensions, the following research questions have been developed:

1. What is the relationship between a professional's highest academic qualification and their position in the workforce?
 - 1.1 How does the level of qualification influence the professional's position in the operating theatre workforce?
 - 1.2 How does the level of qualification influence the professional relationships and interaction in the operating department?
2. How does investment in human capital development benefit the individual health care professional and the organisation?
 - 2.1 What continuing professional development have individuals undertaken since their employment in the operating department?
 - 2.2 What influences the choice of continuing professional development activities?
3. How does attainment of higher level qualifications influence the working practices of health care professionals in the operating department?

- 3.1 How well prepared are professionals for their role in the operating department on completion of their pre-registration programme of study?
- 3.2 What added value does the possession of higher level qualifications bring to clinical performance?

Chapter 3: Research Design

3.1 Introduction

Mixing methodologies in research is not a new phenomenon. Johnson and Gray (2010) provide a history of philosophical and theoretical perspectives shaping mixed-methods research focusing on the distinctions between mind and matter and the influences of these on inductive and deductive thinking. They attribute the development of mixed-methods approaches to Giambattista Vico (1668 – 1744) who “understood the importance of constructivism (*verum ipsum factum*) and nature and mathematics/logic for producing knowledge” (Johnson and Gray 2010, p 77 emphasis in the original). The key to appreciation of mixed-methods designs lies in the acceptance that, for some research projects, the application of solely quantitative or qualitative methodologies in a mono-method study does not go far enough to providing a satisfactory understanding of phenomena and their impact on society. Instead, the researcher should be prepared to draw on the research method or methods that are most appropriate for answering their research questions (Bryman, 2007), acknowledging that more than one method may be required during the investigation. Thus the researcher must remain open to the possibility that quantitative and qualitative data may be brought together in one study.

Tashakkori and Teddlie (2010, p 273) build on this to describe mixed-methods research as a naturalistic approach to investigation:

. . . the mixed approach closely parallels everyday human problem solving in a way that neither qualitative nor quantitative methods can do alone. Everyday problem solvers use multiple approaches (similar to qualitative and quantitative pathways) concurrently or closely in sequence and examine a variety of sources of evidence in decision making (and in forming impressions) . . . We contend that mixed methods emphasizes this humanistic conceptualization of the research process more so than the other two monolithic methodological approaches/movements.

The research design developed for the investigation of human capital in the operating department is based around these naturalistic processes in the form of a mixed-methods design.

Review of extant literature surrounding human capital theory and placing this into the context of operating department practice⁶ has led to the development of a multi-dimensional model of human capital, thereby updating and placing Becker's (1993) theory in the context of modern health care delivery in the United Kingdom. This updated model of human capital has been extended from the Beckerian economic model linking an individual's educational development to higher productivity and, potentially, command of a higher salary, to incorporate professional development areas relating to career pathways, gradueness and employability, professionalisation, and social inclusion through the development of working relationships. The complex nature of the newly extended model of human capital theory is reflected in the research questions devised for this study (see page 72).

The research design developed for this study involves the collection of data via administration of an online or paper-based survey, closely followed by the collection of data by semi-structured interview of a purposive sample of a defined research population. As the chapter progresses it will become apparent that development of the research questions was pivotal to the overall design of the project.

This Chapter commences with a discussion of the philosophical standpoint of the researcher thereby providing insight into the ontological, epistemological and methodological perspectives that influenced the research design. This will be followed by examining the genesis of mixed-methods research as an alternative to more traditional approaches associated with positivist and constructivist epistemology. Detail of the sampling strategy and data collection is provided which includes reflection on the tensions surrounding the positivist

⁶ Operating department practice is used here as a generic term to encompass the roles of Operating Department Practitioners and theatre nurses.

concept of statistical power, as a result of large numbers, against the constructivist concept of data saturation, and how the sampling strategy overcomes these tensions. Ethical issues related to this study will then be considered before moving on to discuss the quality assurance mechanisms employed in this study. Here, again, mixed-methods research throws up some interesting conflicts based in the traditions of the division of positivist and constructivist-based research. Finally, the chapter will justify the techniques employed for data analysis.

3.2 Philosophical Underpinnings

Combining different methods for collecting research data remains an anathema to some researchers based on the division of research methodologies into two incommensurable paradigms reflecting positivist or constructivist epistemology (Morgan, 2007). This section will present a differing worldview and will argue that, to truly understand the impact of some phenomena, one must explore their objective, subjective and intersubjective nature (Johnson & Gray, 2010).

3.2.1 Ontology, epistemology, methodology and methods

The two main research paradigms alluded to above are formed by the researchers' view of the nature of truth (ontology) and how truths are tested and developed into new knowledge (epistemology). This, in turn, leads the researcher to a methodological approach in which data collection methods and analytical techniques commensurable with the researcher's worldview are used to gather and analyse data and present research findings. The origins of positivist epistemology lie in the ontological view of cause and effect based on objective, deductive reasoning which is a feature of the physical sciences (Baginni and Southwell, 2012). Here a priori premises or hypotheses are investigated and lead to one indisputable conclusion. The investigation is controlled to minimise external influence, leading to results that are replicable and remain independent of the researcher's and the research population's interpretations. This is presented as the strongest form of inquiry logic by Baginni and Southwell (2012).

However, Cohen, Manion and Morrison (2011) suggest that investigation of the social world via deductive means is necessarily reductionist and takes no account of the subjective elements of phenomena as individualised, lived experiences. It is important to acknowledge that it is not always possible to provide indisputable evidence to support a priori hypotheses and that theory can be constructed based on individualised interpretation and reaction to external influences; the basis of inductive reasoning and constructivist epistemology (Baginni and Southwell, 2012).

Figure 3.1 presents the major themes of each of the two main research paradigms in table format based on Greene's (2008) Framework for Social Science Methodology.

Figure 3.1: Application of the Framework for Social Science Methodology (Greene, 2008) to the research process (based on Basit, 2010; Maxwell, 2011; and Baginni & Southwell, 2012)

Philosophical Assumptions			Inquiry Logics	Guidelines for practice	Sociopolitical Commitments
Ontology	Axiology	Epistemology	Methodology	Data Collection & Analysis	Purpose & Contribution
Phenomena are external or imposed from outside of the individual	Objectivism – unlikely to be influenced by researcher values	Positivist – objective and tangible. Researcher observes and is on the outside looking in	Quantitative	Deductive: Collection of numerical data from, for example, experimentation or survey. Subjected to statistical analysis	Individually unique to the research. Includes contribution to the evidence base to inform clinical practice; contribution to the professional body of knowledge; and evaluation of the impact of new initiatives.
Phenomena subject to individual perception or cognition	Subjectivism – potential for bias and raising personal feelings in the researcher	Constructivist – personal and subjective. Researcher engages with the research population	Qualitative	Inductive: Data based on perceptions and experiences (e.g. interview, life histories) analysed by researcher to produce detailed narrative	

Greene's framework comprises four domains, and utilisation of this serves to demonstrate the major ontological, epistemological and methodological

differences between positivist and constructivist paradigms. The first area for consideration in Greene's framework are philosophical assumptions *and stances* which reflect the ontological and epistemological stance taken by the researcher. The second area relates to inquiry logics and is representative of the methodological approach taken to research, derived directly from the researcher's philosophical assumptions and stances. Thirdly, Greene details guidelines for practice which encapsulates the research methods selected to elicit data and the techniques used for identification of the research population, design of data collection instruments and approach to data analysis. Finally, socio-political commitments reflect the purpose of the study, asking questions about whose interests are served and what the study contributes to the society in which it is located, and beyond.

The creation of research paradigms based on these two, diametrically opposed ontological and epistemological viewpoints is based on the categorisation of differing ideologies by Kuhn (1996). However, Morgan (2007) suggests that the emphasis on research paradigms and the adoption of a Kuhnian definition of the term 'paradigm' was used solely to fuel the paradigm wars of the 1990s. It is the incommensurability thesis resulting from the development of the positivist and constructivist research paradigms that presents tensions when the prospect of mixing methodologies is considered (Biesta, 2010).

These tensions are highlighted in a study reviewed by Lunde, Heggen and Strand (2013) which demonstrates the disjunction that can occur when researchers from positivist and constructivist traditions come together in a mixed-methods project. The project aimed to analyse mixed data relating to patients' rehabilitation from knee injury bringing together the hard quantitative data and soft qualitative data to add depth to the analysis of recovery rates and the patient experience. However, this project was deemed a failure by the research team as there was no resultant mixed analysis.

What Lunde, Heggen and Strand discovered was that conflicting findings between the quantitative and qualitative strands of the project could not be reconciled by the research team (e.g. patients who were deemed copers, i.e.

were managing their rehabilitation, by the quantitative strand were found to be non-copers by the qualitative strand). Instead of viewing this as an opportunity for further exploration, the respective researchers remained within the boundaries of their research tradition (i.e. positivist or constructivist) and could not move forward. Lunde, Heggen and Strand go on to look at the power relationships that developed that further inhibited the mixing of research data. The relationships were formed on the basis of a research hierarchy where valid and reliable quantitative analysis and presentation of findings is favoured over the development of trustworthy constructions of the patient experience.

Kuhn (1996) argues that a researcher's worldview or paradigm is influenced by their individual development processes. However, he also argues that paradigms mean different things to different people and that paradigms show fluidity in that they change based on emergent theories rather than statically guiding one's approach to theorising. Therefore, as knowledge develops and worldviews are altered, paradigms shift to reflect the developing ideology which is the opportunity that was missed by the researchers in the Lunde, Heggen and Strand (2013) study.

Breaking of the rigid constraints associated with positivist and constructivist epistemology creates flexibility in the way one might approach a research issue (Maxwell, 2011) and, for many authors, presents a new methodological movement based on mixing methods (Creswell & Plano Clark, 2011). However, the ontological and epistemological underpinnings of the new methodology require consideration, clear articulation and justification.

3.2.2 The mixed-methods movement

Mixed-methods research is claimed to present the naturalistic approach of every day human problem solving as alluded to earlier in this discussion (Tashakkori & Teddlie, 2010). However, as this approach to research has gained in momentum, it has been overly complicated by scholars producing various typologies based on the sequencing of quantitative and qualitative data collection, the purposes for conducting mixed-methods research, and how and when mixing occurs (e.g Teddlie & Tashakkori, 2006; Creswell & Plano Clark,

2011). In working through these typologies one has to differentiate between mixed- and multiple-methods approaches by clearly defining what is meant by mixed-methods research. The definition of mixed-methods research that influenced the adoption of this design for the investigation of human capital in the operating department is provided by Bazeley and Kemp (2012, p69) who state:

We would argue that, for the project to be classified as mixed methods rather than multimethod, as a minimum there must be interdependence of component approaches *during the analytic writing process* (i.e., as results *are being formulated* for presentation) and, usually, well before that stage. Just having different sources of data does not necessarily imply mixing of methods, and simply preparing final conclusions on the basis of more than one approach, also, does not mean that the methods have been integrated (emphasis original).

The emphasis in this definition is on the mixing and integration of data during the analysis stage, as a minimum, which sets mixed-methods aside from a multiple-methods approach. Some of the typologies of mixed-methods designs fail to acknowledge this fundamental difference. For example, Creswell and Plano Clark (2011) present two approaches to mixed-methods research that arguably fall outside of the Bazeley and Kemp definition when they describe parallel and some types of sequential approach. In parallel approaches quantitative and qualitative data are collected and analysed separately, within the rigid constraints of positivist and constructivist epistemology, to answer specific research questions. Although some authors pull the analysis together to form meta-inferences from the combined data (e.g. Kamamura *et al.*, 2009), there is no actual mixing of methods as the discussion is a combination of data from multiple sources. Likewise, some sequential studies where the data generated from the first phase is used to develop a data collection item used for the second phase of the study are arguably mono-method studies (Guest, 2013). For example, where focus groups are used as a means of identifying variables which will be analysed by quantitative means (i.e. qualitative data informing the development of a questionnaire), the study takes on a positivist methodology.

If a study is to be considered truly mixed-methods arrangements for the integrated analysis of quantitative and qualitative data has to be considered. Bryman (2007), in reviewing approaches taken in mixed-methods research, identified a particularistic discourse presented by researchers where the research questions determine the methodological approach. The research questions that lead to a mixed-methods design will be based on questions asking how, what and why (Woolley, 2009), generating both quantitative and qualitative data.

The research questions presented in Chapter 2 provide an example of Bryman's particularistic discourse. Here the primary and secondary research questions for an investigation into human capital development in the operating department of UK hospitals are presented. The nature of the questions, where the secondary questions reflect the methodologies used to collect data to answer the primary questions, demonstrates how hybridised questions (Tashakkori & Creswell, 2007) can be developed which direct the study towards a mixed-methods approach. Based on the style of these questions, it becomes clear that a mono-method design would not be sufficient to provide the breadth and depth of data required for the study. To take research question 1 (see page 72) as an example; the relationship between highest academic qualification and position in the workforce could be established by the collection of quantitative data. However, this would exclude the individual's perceptions surrounding the influence of academic qualifications on their position in the workforce structure which, in turn, provides insight into an individual's motivation and decision to participate in higher level academic study or not.

3.2.3 Aparadigmatic research

Adoption of a research design based on the research questions and the acknowledgement that some research designs may include the mixing of quantitative and qualitative data creates a paradigm shift (Kuhn, 1996). Some advocates of mixed-methods research suggest that a third research paradigm has resulted which is based on pragmatist philosophy. Baginni and Southwell (2012) associate pragmatism with the best fit approach of abductive reasoning, where deductive and inductive methods are combined to draw conclusions.

Other authors present research methods on a continuum rather than pigeon-holing them into incommensurable paradigms (e.g. Tashakkori & Teddlie, 1998), based on the pragmatist philosophy of Charles Sanders Pierce who coined the phrase *synechism* (Johnson and Gray, 2010). Pierce uses this term to represent a view of phenomena based on continua rather than as dichotomies. Thus, study of cause and effect could be combined with study of individual interpretation of phenomena in a single study.

However, presenting mixed-methods research as a third research paradigm provides a major flaw in, and undermines, the arguments presented by mixed-methodologists. If positivist and constructivist approaches already form two incommensurable paradigms, how can they be pulled together to form one alternative paradigm? This discourse is taken up by Gorard (2010) who, arguing from a realist perspective, dismisses the ontological, epistemological and methodological debates surrounding the nature of phenomena. He is critical of the paradigmatic approach taken by some researchers and presents an alternative, aparadigmatic, view of the research process. He argues that the bundling of methods into the packages created by paradigms is restrictive and does not allow for a full investigation of phenomena:

What the design should do is eliminate (or at least test or allow for) the greatest possible number of alternate explanations. In this way, the design eases the analysis process and provides part of the warrant for the research claims (Gorard, 2010, p 240).

Building on this, an alternative to the Kuhnian view of research paradigms is presented by Maxwell (2011) where, drawing on the work of Abbott, the ideologies and approaches to investigating research problems are presented instead as heuristics which provide a conceptual framework used to shape the research process. In essence, methodological approaches to research are based on a synechistic continuum where the most suitable method(s) for the investigation are selected. This may be a mixed-, multiple- or mono-method approach based on the nature of the phenomenon under investigation and the research questions. Following this discourse, the paradigmatic approach to research methodology is rejected in the current study in favour of the synechistic, aparadigmatic view of research methods.

The adoption of this flexible approach to the research process is linked to the philosophy of dialectic pragmatism (Johnson and Gray, 2010) where objective, subjective and intersubjective events occur concurrently and it is the investigation of these concurrent events that creates knowledge. Consistent with the pragmatist philosophy of Pierce (Thayer, 1982), it is important to consider that although phenomena may exist independently of the individual, it is the way the individual interprets the phenomenon that creates an individual truth. It is also important to acknowledge that truth is a transient phenomenon which may change as the individual encounters new experiences.

Having provided a definition of mixed-methods research and a distinction between mixed- and multiple-methods, it is important to justify the choice of the current study's research design from ontological, epistemological and methodological perspectives. This is a feature of mixed-methods research that is lacking from much of the published literature (Lipscombe, 2008; Alise & Teddlie, 2010), but is essential in contextualising the researcher's underpinning influences.

3.3 Mixed-methods Research Design

Eschewing the paradigmatic approach frees the researcher to select the most appropriate method(s) by which to conduct their investigation. However, the purpose of the study needs to be clearly defined and a clear rationale presented for the selected methodological approach. The mixed-methods research literature abounds with references to the purposes of conducting a mixed-methods study (e.g. Greene, Caracelli and Graham, 1989) and the presentation of typologies of mixed methods research (e.g. Tashakkori & Teddlie, 1998; Creswell and Plano Clark, 2011) and it is important to sift through these to drill down to the core purpose of the study to be able to justify one's methodological approach.

3.3.1 Justification for the chosen design

Greene, Carcelli and Graham (1989) identify 5 possible purposes for conducting a mixed-methods investigation: triangulation, complementarity, development, initiation and expansion. An overview of each purpose is provided in figure 3.2.

Figure 3.2: The purposes of mixed-methods research based on Greene, Caracelli and Graham (1989)

Triangulation: two data sets are brought together for the purpose of corroboration of results.

Complementarity: two data sets are used to enhance each other and provide a deeper understanding of phenomena.

Development: the use of one method to inform the subsequent data collection by another method.

Initiation: the research process becomes an iterative process whereby the data analysis leads to a reframing of the research questions and further investigation.

Expansion: the different methods utilised broadens the scope of the investigation.

Each of the purposes identified in figure 3.2 is equally relevant for a multiple or mixed-method study, with the overwhelming justification for conducting a mixed-methods study coming back to the research questions, chosen definition of mixed-methods research and the philosophical foundations on which the research is constructed. In the case of this study, justification is provided by the definition of Bazeley and Kemp (2012) and the pragmatist view that external phenomena become truths based on individual experience and interpretation. With this in mind the argument can be presented that the main purpose of this mixed-methods study is complementarity where the qualitative and quantitative data sets are combined to enhance analysis. In this way the strengths of utilising one set of data are used to overcome the inherent weaknesses of the other (Onwuegbuzie & Johnson, 2006). For example, the use of rich qualitative data can be used to complement the statistical analysis of quantitative data to provide a deeper understanding of the phenomenon based on individual perceptions.

Linked to the purposes for conducting mixed-methods research is the manner in which the investigation will be conducted. Tashakkori and Teddlie (1998) present two further factors that impact on how data are collected and analysed. Firstly, they identify the dominance of the data. If a study is quantitative or qualitative dominant, the analysis is primarily by quantitative or qualitative means. This may require some degree of data transformation at the analysis stage (e.g. converting qualitative data to quantitative by performing frequency counts of major themes). However, this approach is necessarily reductionist as the transformation and analysis of data to conform with the dominant method's style of analysis excludes a body of data that may have provided richness and depth to the analysis. The study also moves into the realms of a mono-method design based on the researcher's choice of analysing data in a form most suited to their ontological and epistemological viewpoint. Adoption of an equivalent status approach promotes the integration of quantitative and qualitative data thereby enhancing the analysis as no one form of data analysis assumes priority over the other.

Secondly, Tashakkori and Teddlie (1998) identify the mechanism for data collection based on a typology presented by Creswell. Four approaches are identified based on the sequencing of collection of quantitative and qualitative data. The investigation into the issues surrounding human capital development in the operating department would be categorised as a sequential mixed-methods design in this typology, where qualitative data collection follows the collection of quantitative data. The data sets collected complement each other and thereby the analysis is enriched to explore not only the potential consequences of increasing the academic credential for entry to practice, but also how individual practitioners interpret this change. Data were collected via participant completion of an on-line survey or completion of a paper-based version of the survey which contained a combination of open and closed questions organised around key themes originating from a review of the research literature. This was followed by semi-structured interview of a purposive sample of a specified research population to add detailed understanding to the survey data.

The decision to include some open questions in the survey questionnaire was based on review of an article by Feilzer (2010). Feilzer (2010) illustrates her pragmatic approach and choices in her crime scene study which investigates how crime and criminal justice issues are communicated to the public by the local media. To elicit data, Feilzer devised a sequential approach comprising a paper-based questionnaire followed by a semi-structured interview. However, on analysis of the questionnaire, she found that a number of participants had included notes reflecting their personal thoughts next to certain questions. As these enriched the data set, Feilzer made a pragmatic decision to include these in her analysis.

Although Feilzer focuses on her pragmatic choice to publish a paper promoting pragmatism as the essential underpinning philosophy of a mixed-methods study, it is the significance of the qualitative element associated with the questionnaire that helped to shape the development of the questionnaire in the current study. What Feilzer's study demonstrates is one of the inherent weaknesses of questionnaire/survey-based designs; that of constraint of the participants (Basit, 2010). Dichotomising responses to a question or providing a limited number of options in response to a question does not fully capture the participant's strength of feeling, especially when the phenomenon under investigation is particularly emotive. This may lead to frustration on the part of the participants which could ultimately affect the outcome of the research as some participants may not complete the questionnaire. To overcome this participant frustration, the inclusion of open questions allows participants to express their views around the phenomenon. However, Basit (2010) warns that overuse of open questions may be off-putting to respondents and could produce superfluous information. Therefore, open questions are used sparingly to supplement key closed-questions relating to academic qualifications and clinical role.

Changing the entry level to professional practice is a contentious issue which polarises opinion both within the profession and in those professions allied to Operating Department Practice (i.e. medical and nursing professions). From the perspective of Operating Department Practitioners, a significant change in entry

level occurred in 2002 as the profession moved from a level three National Vocational Qualification (NVQ) to Diploma in Higher Education. The rationale for this move was to ensure parity in qualification with other professional groups and to secure professional regulation with the Health and Care Professions Council (Timmons, 2011). However, as Timmons (2011) reports this created tensions within the profession as some practitioners holding the NVQ level three and the antecedent City & Guilds 752 qualification misconstrued this development as a means to prevent them from practising. Many practitioners thought that they would be required to complete further training to achieve the Diploma qualification or face exclusion from the profession (Timmons, 2011).

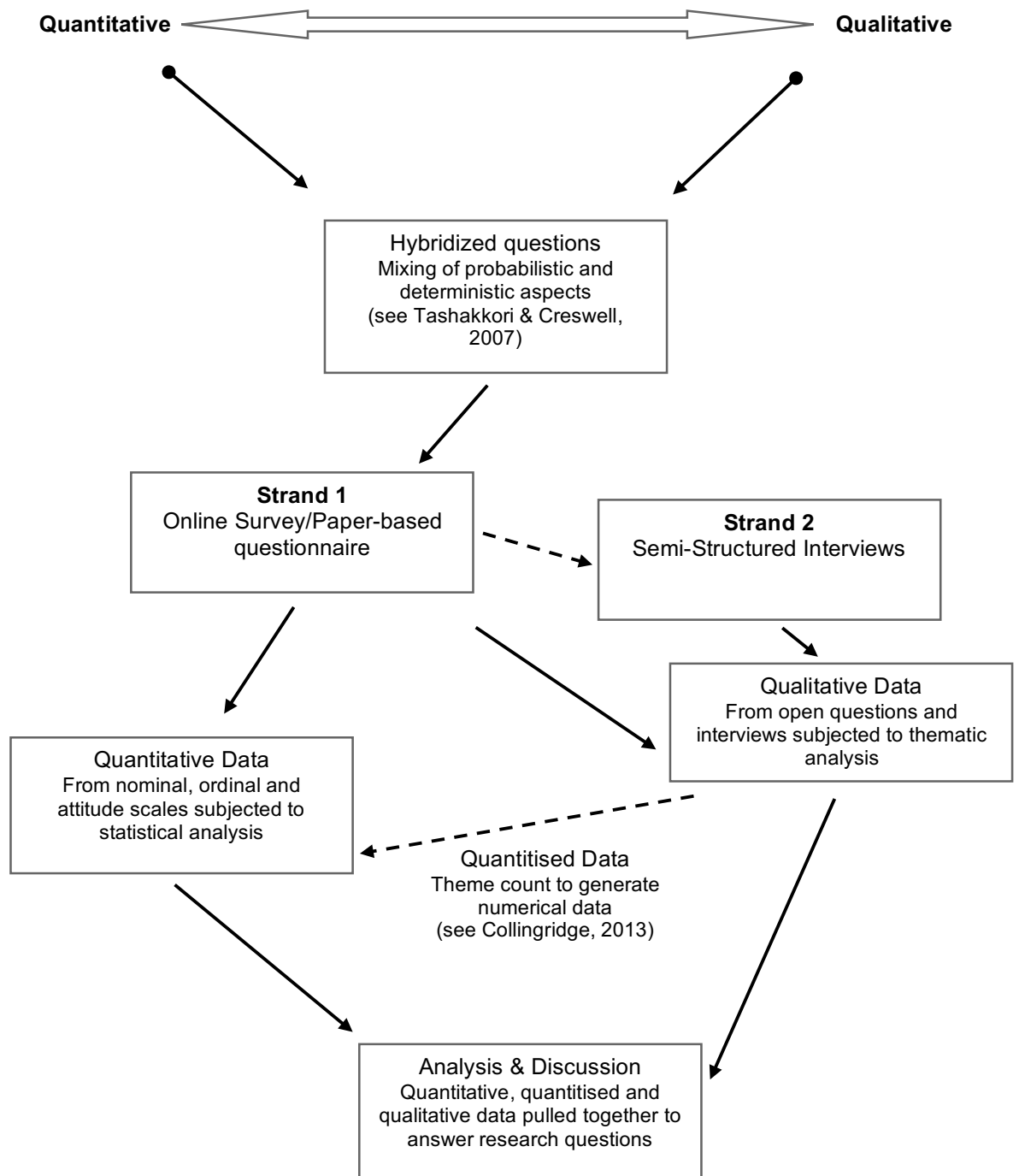
Timmons goes on to report that not all practitioners viewed this as a negative move. For some, the move to diploma provided an opportunity to cement their professional status and to develop the profession in terms of creating a dedicated, research-based body of knowledge on which the profession could be based. Likewise, some practitioners may view the move to degree-level entry as further enhancing the professional status of Operating Department Practitioners. There is also potential for the current proposal to move to degree level entry for the profession to create a similar level of anxiety and debate as noted above.

It was anticipated that investigating human capital development in the operating department would create some debate and discussion amongst the sample population. A single strand approach whereby the survey is used as the sole data collection tool, may not fully capture the strength of feeling around the phenomenon under investigation. Even though open questions were included in the survey questionnaire, there was the inherent danger that respondents would not complete these sections or would only provide a partial answer, limited by the space provided. The second strand of collection by semi-structured interview gave the participants time to discuss their experience in full and allowed areas of interest to be followed up during the interview, providing detailed narrative data which are used to add depth to the final analysis. Implementation of a second strand of data collection also allowed emergent themes from the survey data analysis to be followed up in detail.

Figure 3.3 provides a diagrammatic representation of the research design used for the investigation. To overcome Bryman's (2007) criticisms of lack of integration and unification of data during the analysis stage, an iterative process was developed whereby quantitative and qualitative data are analysed statistically and thematically respectively. In addition to this some data transformation was implemented by the process of quantitising the qualitative data as described by Collingridge (2013).

Transformation of narrative data to numerical data is, by its very nature, reductionist. However, Collingridge reminds us that even after transformation the narrative data still exists for inclusion in the analysis. Adopting this approach ensures full integration of data which has been collected and analysed by mixed methodological techniques thereby remaining true to Bazeley and Kemp's (2012) definition of mixed-methods research.

Figure 3.3: Representation of the mixed-methods design



3.3.2 Data collection instruments

Figure 3.3 demonstrates that data were collected via survey utilising open and closed questions in a questionnaire format (appendix 1), followed by semi-structured interview (appendix 2). This strategy was developed after careful consideration of the three key factors identified by Cohen, Manion and Morrison (2011 p. 258) as “purpose of the enquiry, population upon which the research is focused and the resources available”.

The central aim of the enquiry is to provide detailed analysis of human capital development in the operating department and how this impacts on the clinical role and professional relationships of Operating Department Practitioners and theatre nurses. As the design is driven by the research questions, this necessitates the gathering of quantitative and qualitative data relating to the individual’s current academic status, salary, plans for participation in academic study, their readiness for work in the operating department as well as garnering their views on the impact that academic qualifications have on their practice and social and working relationships in the department.

3.3.2.1 The survey questionnaire

Lietz (2010) views surveys (and other forms of data collection) as complex communication processes and presents them as distinct models of communication in that researchers need to agree what to ask and encode this as questions in a survey. This produces a physical stimulus which is decoded and internalised by the respondent based on their socio-cultural, socio-economic and educational frames of reference, allowing them to construct and encode their response. The response is transmitted to the researcher via completion of the survey which is then decoded by the researcher and meaning attached to the responses in the context of the research parameters.

Considering Lietz’s review this design underwent careful planning as suggested by Oppenheim (1992) where the nature of the data collection instrument was reviewed against the type of data required for the study paying careful consideration to the target audience.

The purpose of the survey is to elicit data relating to the current situation with regard to theatre practitioners' entry level qualification, highest academic award, salary, attitudes towards degree-level study and planned participation in study at degree or higher level. Careful consideration was given to the use of educational and economic terminology associated with human capital development so that questions and trigger statements for Likert items used terminology familiar to the respondents. Consideration was also given to the inclusion of items to determine the gender of the participants. It was decided that this data would not be collected as the focus of the research is at a professional level and on individuals within a professional group. Gender therefore would be irrelevant as it is the professional's interpretation of the phenomenon based on their professional perspective that is sought, and gender comparison was not the purpose of the study.

Oppenheim (1992) classifies this type of questionnaire as a descriptive design which aims to determine the current state of play within the selected sample population. Cohen, Manion and Morrison (2011, p. 377) identify survey questionnaires as useful for "providing structured, often numerical data" but this data may not accurately reflect the respondent's true values as the responses for nominal questions and the triggers for responses to attitude scales are pre-selected by the researcher. As there are issues surrounding human capital development in the operating department that require depth of understanding of the respondent's rationale for their selection of a specific response, open questions are nested into the questionnaire.

Quantitative data were generated by use of nominal and ordinal questions. Nominal data facilitate identification of professional role of the respondent and their position within their organisation, linked to their current pay band and provide census-style data to provide background information about the participants. Thus the first part of the questionnaire contains dichotomous and multiple-choice questions. Research literature is full of advice regarding where to best place personal information such as that identified above (e.g. Basit, 2010). The survey presented these questions in the opening section, following Cohen, Manion and Morrison (2011) who suggest presenting these questions

first allows the respondent to develop familiarity with the survey format and thereby develops confidence in their ability to complete the survey.

Ordinal data were generated by the use of attitude scales in the form of 5-point Likert items. The 5-point response was selected as, visually, it is easy for the respondent to take in the information and process their response. The items are presented as matrices designed to determine the strength of feeling around the dimensions of human capital development identified from the literature review. Multiple items gauging attitudes for one specific dimension can be grouped together to form a Likert scale (Carifio & Perla, 2007). Wherever possible the trigger statements are based on published statements to increase the validity of the instrument. For example, the Dublin First Cycle descriptors (Sirca *et al.*, 2006) were used to develop the trigger statements in the matrix regarding graduateness, thus linking data collection to key reference points identified from the literature review.

Nominal and ordinal data provide comparative data which were used to analyse the current position of the nursing and ODP workforce in terms of educational attainment, salary, position within the organisation and attitudes towards increasing academic credentials. However, as Feilzer (2010) discovered, additional qualitative data can add depth and richness to the statistical analysis. In the words of Cohen, Manion and Morrison (2011, p.392):

It is the open-ended responses that might contain 'gems' of information that otherwise might not be caught in the questionnaire. Further, it puts the ownership of the data much more firmly into the respondents' hands.

To facilitate the capturing of this rich, detailed data, open-ended triggers are nested within the quantitative data and are aligned in particular to the attitudinal scales. The attitude scales test the strength of feeling of the respondent in each of the dimensions of the revised model of human capital theory presented in Chapter 2. The inclusion of open-ended questions allows the respondent to link themes together, but also allows them freedom to justify their response to rating scales, thereby removing the constraints of the highly structured approach to data collection.

3.3.2.2. *Semi-structured interview*

To overcome the weaknesses of the survey a second strand of data collection was introduced. The survey data provided useful background information about the cohort of participants studied, but the detail that provided depth of understanding came from qualitative data generated via semi-structured interviews.

Interviewing participants, according to Silverman (2014), requires no special skill other than to build up a rapport with the interviewee. Despite this Cohen, Manion and Morrison (2011) suggest that the design of the interview has to be carefully planned, particularly in terms of the formatting of questions and the mode of response. To ensure that the interview remained true to the research questions, a schedule was devised based on the primary and secondary research questions (appendix 2). Not only did this maintain the focus of the research, it assisted with primary thematic analysis of the combined qualitative and quantitative data, where the data were divided into three themes based on the primary research question. One key aspect of the interview was to develop a profile of the individual participant, based on their work role and academic achievement. This necessitated the use of some of the closed questions from the survey. A key decision was whether to include these as a mini-survey completed before the interview or to include these as part of the interview. The decision was made to include these questions as part of the interview based on feedback from the pilot interviews.

After the closed background questions, the interview schedule was devised to elicit “unstructured responses” (Cohen, Manion & Morrison, 2011, p. 419) to allow the participant opportunity to express their feelings about the phenomenon under investigation. Again, as with the survey questionnaire, care was taken in developing the ‘trigger’ question to use terminology that is familiar to the interviewee. However, the main advantage of interview over the survey was that prompts could be given to the participant or the question reworded if the participant was unclear. The other major advantage was that the interviewer could seek clarification of their understanding of the response to the question if required, and also ask supplementary questions to seek further details.

3.3.2.3 Limitations associated with the data collection instruments

There are some inherent weaknesses associated with data collection that are applicable to both strands of the design. Lietz (2010) identifies social desirability as a major issue. This is where answers are provided by a respondent that link to current thinking or policy on a subject rather than giving their own thoughts. Lietz (2010, p. 252) argues:

Socially desirable responses can lead to answers that inaccurately reflect respondents' actual behaviours in a number of ways . . . respondents might choose to select a certain position that is thought to be the one favoured by society . . . respondents think that they should be informed about certain issues . . . and give responses conveying this impression instead of admitting ignorance.

Cohen, Manion & Morrison (2011) go on to identify further issues surrounding the respondents' interpretation of the question and their ability to comprehend the issues under investigation and articulate their responses. When survey questionnaires and interview schedules are developed, the researcher selects the most appropriate terminology by which to encode their prompts (Lietz, 2010). The message received by the respondent may be different to that proffered by the researcher and will therefore impact in the response provided. This effect was minimised by piloting the questionnaire and interview schedule prior to data collection (see section 3.6.3). The issue of respondent comprehension of the issue under investigation is addressed by selecting a sample population who have the pre-requisite knowledge of the phenomenon under investigation (see section 3.4, Sampling Strategy, for information on the purposive sample). Articulation of response is a potential issue with the open-ended survey questions and interviews where there is a possibility that the question will remain unanswered by some respondents for one of three reasons: their lack of understanding of the issues surrounding human capital development; an inability to articulate their feelings; or a lack of clarity in the questions asked. These issues are addressed via the sampling strategy and effective piloting of the data collection instrument.

3.4 Sampling Strategy

Identifying the research sample in mixed-methods research creates tensions for paradigmologists due to the combination of quantitative and qualitative methodologies (Teddlie & Yu, 2007). The major tension is in determining a sufficiently large enough sample to facilitate statistical analysis of quantitative data against the constructivist concept of collecting data until themes in the data are replicated; a situation recognised by Collins, Onweugbuzie and Jaio (2007, p. 273):

Sampling designs play a pivotal role in determining the type of generalizations that is justifiable. In particular, whereas large and random samples tend to allow statistical generalizations, small and purposive samples tend to facilitate analytical generalizations and case-to-case transfers.

Collins, Onweugbuzie and Jaio (2007) go on to present a two-dimensional mixed methods sampling model which matches the type of mixed-methods study to a sampling design. Using this framework, a “Sequential > QUAL + QUAN > Identical” (Collins, Onweugbuzie and Jaio 2007, p.276), strategy is utilised where there is equal emphasis on the qualitative and quantitative data which are collected sequentially from the same pool of participants. In the case investigating human capital development in the operating department, the research sample comprises Operating Department Practitioners and theatre nurses who are directly experiencing the phenomenon of increased academic entry to their respective professions. This type of sampling strategy is defined as a ‘critical case purposive sample’ where the sample group is selected on “. . . specific characteristics because their inclusion provides the researcher with compelling insight about a phenomenon of interest” (Collins, Onweugbuzie and Jaio, 2007, p272).

However, identification of the sample group does not reconcile the issue regarding sample size. Collins (2010, pp 370 - 371) reflects on the impact of too small a research sample, stating “. . . statistical inference can be compromised by insufficient power based on using sample sizes that are too small and using a sample scheme that limits external validity”. This does not present an issue in this study as statistical inference is not one of the objectives for collecting

quantitative data. The purpose of the quantitative data in this study is to provide census-style information about the individual participants and their role in the operating department. The constructivist concept of data saturation, where no new themes emerge from the data collection process, is normally achieved within a small sample of the research population (Ritchie et al., 2014). This potentially impacts on the quantitative analysis by not allowing, for example, trends in attitude towards academic credentials to become evident.

Teddlie and Yu (2007) argue that there is a trade-off to be made when devising a sampling strategy between the positivist concept of statistical power and the constructivist concept of data saturation and one must make a pragmatic choice between selecting a large probabilistic sample or a small purposive sample. Either choice may have implications for the subsequent data analysis. To overcome these tensions, a sampling strategy was devised to fit each strand of data collection.

3.4.1 Strand 1: Collection of survey data

A critical case purposive sample (Collins, Onweugbuzie and Jaio, 2007) was identified. In this case the sample comprised the Operating Department Practitioner and theatre nurse population in four NHS hospitals in the West Midlands region of England. The hospitals were selected based on the researcher's existing network of contacts which facilitated easy access to operating department personnel.

An initial email was sent out to one contact in each hospital who would act as gatekeeper (Ritchie *et al.* 2014) in the early part of the data collection process. They were asked to provide preliminary information regarding the total number of ODPs and nurses currently working in their department. This was conducted as a head count rather than the use of whole-time-equivalent status as, at this stage of the process, the differentiation between full- and part-time staff was not important. The initial contact with the gatekeeper identified a total of 574 theatre practitioners working across 4 sites of varying sizes. The total comprised 204 Operating Department Practitioners and 370 theatre nurses.

The gatekeepers within each hospital site acted as distributors, firstly of a Participant Information Sheet (appendix 3) followed by a link to the on-line survey. The Participant Information sheet provided detail of the research project and guarantees of anonymity and confidentiality (see section 3.5, Research Ethics). This strategy aimed to include all 574 theatre practitioners in the study. However, this proved to be an unsatisfactory process and resulted in only nine responses to the on-line survey. To overcome this, the survey was converted to a paper-based questionnaire which was distributed personally by the researcher to a further 141 ODPs and nurses during the researcher's visits to their operating department. The total sample of 150 was a self-selected sample of personnel who expressed an interest in participating in the study, and includes the nine respondents who completed the online survey. The number of respondents was continually monitored and fortnightly reminders emailed to the gate keepers who were asked to remind their staff to complete the questionnaire. The researcher also provided prompts to participants during regular visits to their department carried out as part of the researcher's day-to-day job. This action was aimed at minimising non-completion which is a feature of survey/questionnaire-based research identified by Cohen, Manion and Morrison (2011). Despite extensive follow-up, only 60 questionnaires were returned, representing a response rate of 40%. Of the 60 questionnaires returned, 22 were completed by theatre nurses and 38 completed by Operating Department Practitioners.

3.4.2: Strand 2: Collection of interview data

The semi-structured interviews were conducted with a stratified purposive sample of 11 practitioners. This sample worked within the operating department of one of the larger NHS trusts which was also used as a site for collection of quantitative data. These interviewees may have participated in the survey too. The sample comprised 6 ODPs and 5 theatre nurses and the sample was stratified to reflect the range of roles within the department (newly qualified practitioner through to Matron), based on their NHS salary Banding (Bands 5 – 8). One ODP and one nurse from each salary Band was selected to facilitate direct comparison between the two professional groups. The uneven number of interviewees is the result of the decision taken to include all members of the

newly formed Practice Development Team in the sample. At the time of the interviews this comprised 3 members: 2 ODPs and 1 nurse.

Access to this sample group was organised by the gatekeeper in the trust who was able to secure an office within the department and schedule interview times and dates. The gatekeeper also approached the participants, providing them with the Participant Information Sheet.

3.5 Research Ethics

A number of considerations have to be made when conducting research involving individual values and opinions. According to Basit (2010) one should consider how the research sample will be accessed; what information will be provided to participants and how they will provide their consent to participate; how confidentiality and anonymity will be preserved; and how the research findings will be reported to prevent deception and misrepresentation. These considerations are brought together under the banner of research ethics where researchers “. . . strike a balance between the demands placed on them as professional scientists in pursuit of truth, and their subjects’ rights and values potentially threatened by the research” (Cohen, Manion and Morrison, 2011, p. 75). To demonstrate that this balance has been struck ethical approval was obtained from the researcher’s host University’s Research Ethics Committee. As the research involves participants working in the National Health Service, guidelines for ethical approval developed by the Health Research Authority were reviewed. The Health Research Authority website provides tools and information aimed at guiding the researcher through their ethical approval process. Completion of the *Do I Need NHS REC [Research Ethics Committee] review decision tool*⁷ confirmed that NHS REC approval was not required.

To satisfy the requirements of the University Ethics Committee and in compliance with the ethical guidelines published by the British Educational Research Association (BERA 2011) consideration was given to accessing the

⁷ The *Do I Need NHS REC review decision tool* is accessed via <http://www.hra-decisiontools.org.uk/ethics/> and was completed on Monday 1st September 2014 @ 19.00.

research sample; informed consent; anonymity and confidentiality; and reporting research findings in an ethical manner.

3.5.1 Accessing the research sample

The use of gatekeepers in the recruitment of the research sample provides an additional dimension to the research. The gatekeepers are clinical placement colleagues involved with the delivery of the pre-registration Operating Department Practice award at the researcher's host University. A relationship spanning at least 10 years has been developed with each gatekeeper and it was anticipated that the good-will developed during this time would be sufficient to engage them in the distribution of information about the research project to all ODPs and nurses in their department.

However, Ritchie *et al.* (2014) warn of familiarity breeding contempt and the potential for the researcher to apply gatekeeper coercion thereby taking away the gatekeeper's autonomy in exercising choice over this role. To ensure this did not occur gatekeepers were given the option of withdrawing their services at any point in the study and nominating a suitable replacement.

3.5.2 Informed consent

To gain the trust of participants at all levels of the study, gatekeepers and the research sample alike, the nature of the study was set out in a participant information sheet (appendix 3). Cohen, Manion and Morrison (2011) view informed consent in terms of a contract between the participant and the researcher which addresses issues such as withdrawal from the study, data storage and representation of participants in presenting results and data analysis. The Ethical Guidelines for Educational Research (BERA, 2011) are very clear that risks, as well as benefits, to the participant must be made explicit prior to commencement of data collection. For the current study, the overriding risk to the individual participant comes from direct quotation from qualitative data. This risk is minimised due to the anonymous nature of the survey and the anonymising of narrative generated from the interviews.

Participants were given the option of completing or not completing the survey. As such they were allowed to express free choice where those completing the survey provided tacit consent through their willingness to participate. There were no issues relating to the individual's capacity to consent as all participants are registered health care professionals currently working in the operating department. The interviewees were given the option of withdrawal at any point in the research process. Their willingness to be interviewed was taken as tacit consent to participate in the study and verbal consent to the audio recording of the interview was gained. The data generated from interviews would be destroyed and discounted, should any interviewee withdraw consent after their interview session.

3.5.3 Anonymity and confidentiality

Anonymity and confidentiality are key tenets of informed consent. This concerns the disclosure of research data without revealing the identity of participant (Basit, 2010), which is of paramount importance to the participant if data are collected relating to their personal circumstances and preferences.

Although investigating human capital development does lead to the collection of some personal data (e.g. current salary and views on degree level study), the use of survey as one of the data collection instruments aids anonymity and confidentiality as the participant is not asked to identify themselves or their employer at any point during the survey. A further decision was made to not code individual surveys which could have been used to link each survey to the participant. Data from the interviews was anonymised during transcription and reporting of findings. The original recordings and transcripts were securely stored in a locked cabinet, and only accessed by the researcher and his supervision team for the purposes of completing this study.

3.5.4 Reporting research findings

The final ethical consideration is how data are displayed and how individual participants are represented during data analysis. The Participant Information Sheet made clear the intention to use verbatim quotation of qualitative data as part of the analysis and discussion of the research findings. The anonymity built

into the research design meant that any quotations could not be ascribed to any individual participant. However, individual participants may recognise their own contribution when reading the final draft of the study and a main area of concern is that their views are not misrepresented. One of the principles underpinning the BERA (2011) guidelines is that of academic freedom, thereby giving the researcher flexibility in what or who they study, by whatever means are appropriate and, importantly, freedom to construct their theories however they see fit. This is tempered by clear guidelines on researcher misconduct where the researcher brings research into disrepute by, amongst other things, falsifying or sensationalising findings and distorting findings by selective publication (BERA, 2011, p. 10). This issue is overcome in the current study, by the accuracy of reporting research findings and ensuring the trustworthiness in the construction of theory from the data presented (see section 3.6).

3.6 Assuring the Quality of Mixed-methods Research

A major issue associated with any type of research is that different parties view the quality of the research in different ways. O'Cathain (2010) has produced an inclusive framework, initially aimed at mixed-methods research, which identifies the phases of the research process – from research proposal through to publication - and alludes to quality indicators for each stage. She stresses the difficulties associated with applying all quality indicators, as, for example, published articles may not provide detail about the initial proposal or the data collection items. However, the framework does serve as a point of reference for the phases involving selection of the sample population, developing data collection items, conducting data collection, data analysis and reporting findings. Analysis of O'Cathain's framework ultimately brings the researcher back to two quality measures: these being validity and reliability.

Assuring the quality of mixed-methods research utilising the concepts of validity and reliability highlights contradictions based on the traditional view of research data emanating from research designs based on the paradigmatic principles of positivist or constructivist epistemology. The contradictions stem from the use of the terms validity and reliability and their application to positivist and

constructivist research (Lewis *et al.*, 2014). Authors such as Bryman (2006) posit validity and reliability as quantitative constructs based around accuracy (validity) and replicability (reliability). However, Lewis *et al.* (2014) demonstrate how these constructs are equally applicable to constructivist research and by bringing the two sets of discourse together, one can demonstrate the application of validity and reliability to mixed-methods research.

3.6.1 Validity, reliability and generalisations

Validity and reliability are the central tenets in determining the quality of research. Lewis *et al.* (2014) demonstrate how these concepts originated in the natural sciences as part of the broader positivist notion of generalisability, i.e. that data taken from a representative sample of the population can be extrapolated and applied to the population as a whole. However, Lewis *et al.* (2014) go on to differentiate between different types of generalisation in discussing how generalisations can be made from qualitative data analysis and how validity and reliability can be used as quality indicators in assessing the generalisations drawn.

The Lewis *et al.* (2014) discourse forms the basis of the quality inferences (Tashakkori & Teddlie, 1998) used to determine the quality of the current study, thus providing a framework that resonates with O’Cathain’s (2010), but presents the detail in a concise form based on validity, reliability and the ability to generalise from the research findings. Validity is identified as an essential requirement for all research projects and is viewed as the accuracy with which the data gathered and reported on reflect the nature of the phenomenon under investigation (Cohen, Manion & Morrison, 2011). Reliability is associated with replication of findings and, due to the positivist connotations associated with replication, is sometimes ignored by constructivists. However, both validity and reliability are addressed in this study.

3.6.1.1 Validity

Validity is addressed at three levels: measurement validity, internal validity and external validity (Lewis *et al.* 2014). Figure 3.4 defines how of these aspects of validity are applied in this study.

Figure: 3.4: Measures of validity based on Lewis et al. (2014, p. 356)

Measurement validity - the 'degree to which the measures used successfully capture the concepts they are intended to capture'.

Internal validity - 'the extent to which causal statements are supported by the study'.

External validity - 'the extent to which the study's findings can be generalised to a population and/or to other settings'.

Measurement validity is shown in the constructive alignment of the study. The design of the study has been driven by the research questions (Bryman, 2007), which were developed after undertaking a critique of previous research in the field and identifying gaps in the literature. The data collection instruments were thus designed to test the theoretical constructs developed from review of the literature surrounding human capital theory and the associated areas of professionalisation, gradueness and employability, and development of working relationships. Conducting pre-pilot and pilot studies (see section 3.6.3) aided in demonstrating measurement validity by ensuring that participants understood the questions being asked and that the data generated related to the constructs under investigation.

Internal validity is established through the inferences drawn from data analysis. For Tashakkori and Teddlie (1998) the quality of these inferences rests in the true and accurate representation of the data generated. Analysis of the work of various authors (e.g. Tashakkori & Teddlie; 1998; Cohen, Manion & Morrison, 2011; Lewis *et al.*, 2014) suggests that there are two elements to internal validity. First is the face validity of the data collection instrument. In other words, does the instrument collect the appropriate type of data and ask the right questions? Second is construct validity. It is here that the quality of the constructs developed by the researcher must be grounded in the data gathered.

External validity refers to how the constructs developed represent the research population and the population beyond this, and is thus a reflection of the

generalisability of the data. Due to the issues surrounding the recruitment of a critical case purposive sample, this study only represents those that have participated in it. Therefore, *representational generalisation* is demonstrated by producing analyses that are trustworthy, accurate and rich in detail (Lewis *et al.*, 2014) from the qualitative data, to support the descriptive statistical analysis drawn from the quantitative data.

3.6.1.2 Reliability

Reliability refers to the replicability of the research findings; would the data collection instruments, administered to a similar, or the same research population at a later date, elicit the same findings (Cohen, Manion & Morrison, 2011)? Establishing reliability in research containing qualitative elements is problematic due to the transience of the constructions formed by individuals and the small research populations and, for this reason, Lewis *et al.* (2014) state that many constructivists ignore it.

For Lewis *et al.* (2014, p 356) the key to establishing reliability of qualitative data lies in identifying:

. . . what features of the raw qualitative data might be expected to be consistent, dependable or replicable . . . Thus the reliability of the findings depends on the likely recurrence of key features of the raw data and the integrity with which they have been classified.

Therefore, the reliability of the findings is established by the relatability of the findings to others experiencing the same phenomena. This study demonstrates reliability in the thematic analysis of qualitative data and mixing with relevant quantitative data to produce themes which are *likely* to recur in similar studies of the same phenomenon.

3.6.1.3 Triangulation

For many mixed-methods authors (e.g. Ostlund *et al.*, 2011) the major advantage of access to multiple data sources lies in the ability to corroborate one's findings thereby increasing the internal validity of the study. There is the further advantage of the strengths of one method compensating for the weaknesses of the other (Onwuegbuzie & Johnson, 2006). For example, the

broad trends identified by statistical analysis of quantitative data are supplemented by the detailed, rich narrative of the qualitative data which enables the research to gain a detailed understanding of the phenomenon under investigation.

Triangulation has been posited as the main way to corroborate findings by using multiple sources of data (Tashakkori & Teddlie, 1999). Torrance (2012) goes as far as to suggest that triangulation is the primary purpose of mixed-methods research designs. Although complementarity (Greene, Caracelli and Graham, 1989) served as the original purpose for mixing methods in the current study, the bringing together of two data sets has facilitated the corroboration of results. Therefore, methodological triangulation (Cohen, Manion & Morrison, 2011) becomes a natural feature of mixed-methods research as Torrance (2012) argues.

3.6.1.4 Generalisations

Lewis *et al.* (2014) view generalisation as the relevance of the study beyond the sample and the context of the study itself. In positivist research, the use of inferential statistics based on a probabilistic, representative sample increases the confidence with which such generalisations can be made (Cohen, Manion & Morrison 2011). Generalisation is a contentious issue in constructivist research due to the selection of purposive samples where phenomena are investigated on an individual basis leading to multiple realities rather than one universal law. This discourse throws an interesting question for mixed-methods research: can mixed-methods findings be generalised due to the inclusion of a subjective element to the process? Lewis *et al.* (2014) arguing from a constructivist perspective, provide the means by which this question can be answered. They identify three types of generalisation, one of them being *representational generalisation* which is where data are generalised to the population from which the research sample is drawn.

Due to the nature of this study and the focus on two groups of health care professionals in one highly specialised area, representational generalisations can be drawn from the data generated. Lewis *et al.* (2014) go on to discuss how

the process for representational generalisation is very different in qualitative research to that of the quantitative approach of statistical analysis:

. . . the value of qualitative research is in revealing the breadth and nature of the phenomena under study. It is this 'map' of the range of views, experiences, outcomes, etc., and of the factors and circumstances that shape and influences them, that can be generalised to the parent population (Lewis *et al.*, 2014, p 351).

So, within this mixed methods study, the generalisations are based on a descriptive statistical analysis of the quantitative data and the depth and breadth of the qualitative data in analysing the perceptions and experiences of the sample population.

3.6.2 The pilot study

To determine and increase the measurement validity of the survey, a pre-pilot and pilot studies were conducted using a small sample of Operating Department Practitioners and theatre nurses. The pre-pilot and pilot samples were taken from a hospital that did not participate in the main study. The pre-pilot study focused on determining whether all of the key constructs emanating from the literature reviewed surrounding human capital development, and its associated dimensions were included in the data collection items and were placed in the context of operating theatre practice.

The pre-pilot study was conducted with four participants, two ODPs and two theatre nurses. These participants reviewed the participant information and completed a draft survey questionnaire. The participants were asked to identify any areas that lacked clarity and were also asked to comment on the design of the questionnaire. The four participants formed a focus group, where their observations were discussed, resulting in the re-wording of some questions to avoid specialist educational terminology.

From the pre-pilot study, the survey was developed and piloted with a broader group of ODPs and theatre nurses (n = 10). Cohen, Manion and Morrison (2011) drawing on the work of Oppenheim stress the importance of the pilot study in gaining feedback on the content and format of the survey. It also

provided an opportunity for a trial run at analysing the data generated from the pilot study. As the data from the quantitative strand of the project were analysed, emergent themes were included in the interview schedule used in the qualitative strand of the project. The interview schedule was piloted with two participants who were not part of the purposive sample for the main study.

3.6.2.1 Findings from the pilot study

The major aspects of the on-line survey tested by the pilot study were the clarity of the survey instruction and questions, how questions were interpreted by the participants, the overall structure of the survey including sequencing of the questions, and the time taken to complete the survey. The main finding related to the wording of the questions about the participant's educational and professional qualifications. Due to the diversity of qualifications available, an *other, please specify* category was included for questions 9, 13 and 15 (see appendix 2). There was also lack of clarity relating to some of the older versions of the ODP award which were reworded to aid clarity. The category *City & Guilds* was amended to *City & Guilds 752* in question 9 (see appendix 2). The issue here arose from the numerous City & Guilds awards on offer. The addition of 752 added specificity to the question leaving the respondent without doubt that the question related to a previous version of the ODP award. When exploring the participant's intentions to study for an academic award, the questions relating to level and type of award (questions 17 & 18) had a *don't know* option added. All modifications as a result of the pilot study ensured that each questionnaire collected a full complement of data to avoid issues associated with quantitative analysis due to missing data (Oppenheim, 1992).

The paper-based questionnaire was also piloted. The aim here was to ensure that the participant could navigate their way through the questionnaire and that all instructions were accurate. Cohen, Manion and Morrison (2011) review the debate surrounding where to add instruction for filtering questions (e.g. the instruction for which question to answer after giving a specific response). Including the filtering instruction immediately after the box that the participant ticked to select their response was popular with the pilot group. Although this

looked over-detailed on the questionnaire, they commented that it was a very useful navigational aid.

The main purpose of piloting the interview schedule was to check the clarity of questions, and whether any questions were ambiguous, leading or insensitive. It also provided practice for the researcher and determined the duration of the interview. One of the major areas considered in the pilot was how to collect the data for the closed questions that would contribute to the participant profile. Originally, this was in the form of a mini-questionnaire. However, the participants involved in the pilot felt that this added formality to the process, a little like completing a health survey before a GP appointment. The decision was made to include these questions at the beginning of the interview. The participants responded well to this as they felt that talking about themselves and their role built their confidence and allowed a rapport to develop between interviewer and interviewee.

The duration of the interview was essential to the success of this strand of data collection. The operating department is a busy environment and there are shortages in staff, making the time available to meet with the sample group very limited. The interview was designed to last for a maximum of 30 minutes and the pilot process provided the researcher with an opportunity to practise interview management, i.e. to keep the interview moving whilst allowing the participant to share their views.

3.7 Procedure

Survey data were collected over a three-month period using a combination of the on-line survey tool and paper-based questionnaire. A pragmatic decision was made early on in the data collection period to develop the on-line tool into a paper-based method of data collection as the gatekeepers in the selected hospitals proved an unreliable method for recruiting participants to the research project. The gatekeepers circulated the participant information to ODPs and nurses in their department as requested. However, the success of this method of participant recruitment was dependent on the ODPs and nurses firstly

accessing their email, and secondly reading the content of the email before deleting it. When the gatekeepers circulated the email there was an initial response from one or two people in the department, but if responses did not come within 24 hours of circulation of the email nothing further would be received.

Over the three-month period opportunities were taken to access theatre audit half-days. These are periods of time which are cleared of scheduled operating lists so that medical teams can review their practice by means of clinical audit. Theatre staff take this opportunity to attend clinical updating events supporting and developing their practice. A place on the theatre audit schedule was booked in each hospital by the researcher, where the purpose of the research was discussed directly with ODPs and theatre nurses and the paper-based questionnaire administered to those happy to participate in the study. Scheduling time into in-house staff development activities therefore seemed the most appropriate way in which to improve participation rates in the study, thereby developing a purposive convenience sample (Cohen, Manion & Morrison 2011). A trade-off had to be considered here as the research participants would only be drawn from those ODPs and nurses who were willing to participate and who were available on the day of the audit. In total 150 questionnaires were given out (this figure includes nine completed on-line surveys). Many participants willingly gave their time at the point of meeting to complete the questionnaire. However, others wanted to take the questionnaire away to complete in their own time. In this case, the elected gatekeepers collected the completed questionnaires and forwarded them to the researcher. At the end of the data collection period, the questionnaires were subjected to analysis and emergent themes were included in the interview schedule.

Interviews were organised by the gatekeeper in one hospital selected to participate in the quantitative strand of the project. The decision to use only one of the hospital sites was based on the fact that the site was easily accessible and employed ODPs and nurses across the full range of job roles (i.e. Matron to newly qualified practitioner). Utilising the gatekeeper's local knowledge allowed

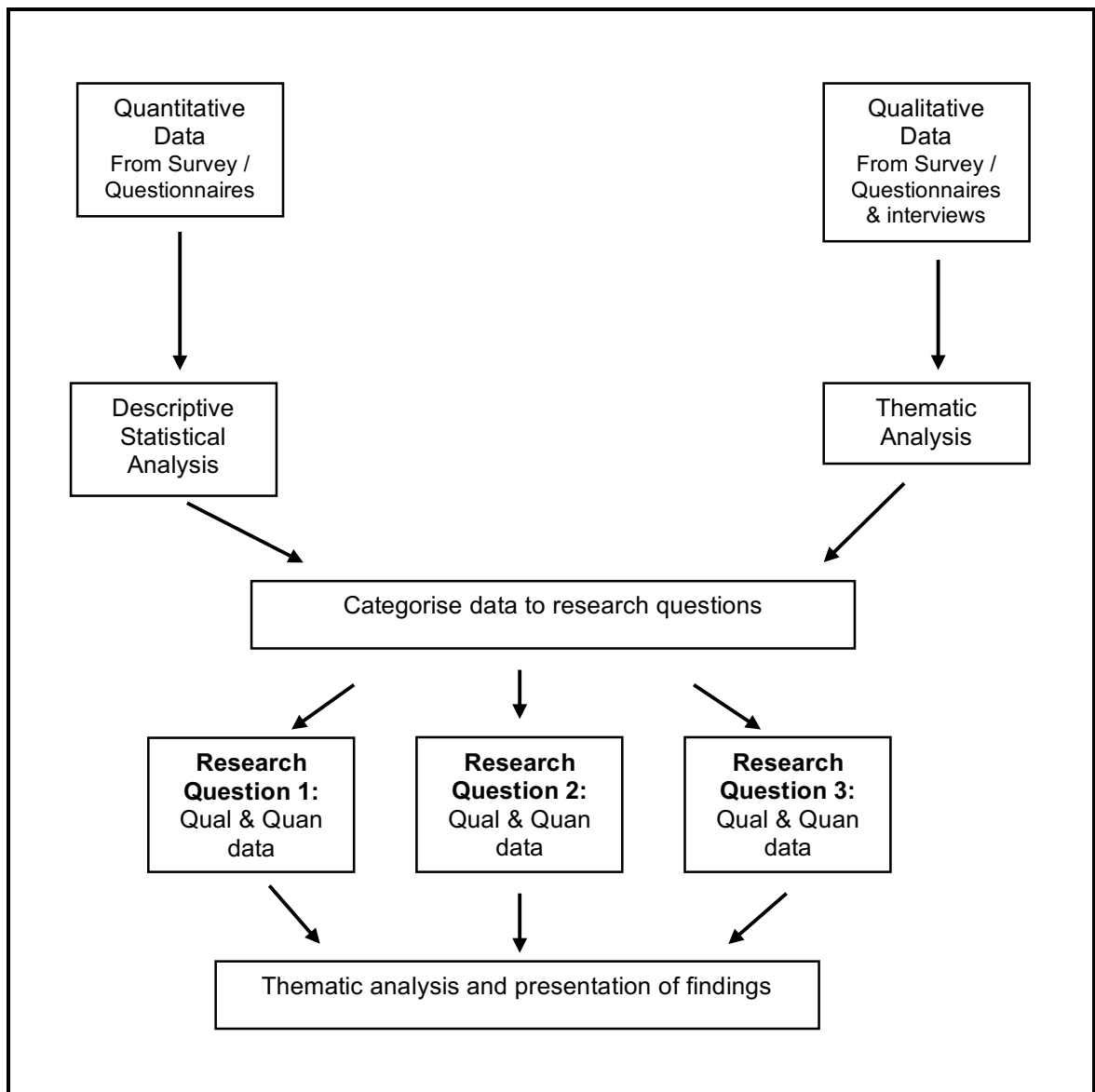
the selection of the 11 participants. To minimise disruption to services, the interviews were scheduled, where possible, during the monthly clinical audit sessions or outside of routine operating hours.

3.7.1 Data analysis

Data analysis in mixed-methods studies presents some interesting issues concerning the treatment of quantitative and qualitative data in one study. For some authors, as reported by Ostlund *et al.* (2011), the answer is straight forward: treat each set of data in accordance with paradigmatic norms and develop meta-inferences from the resultant analysis. However, this does not satisfy the Bazeley and Kemp (2012) definition of mixed-methods research which is used to shape this study.

To utilise the data fully a three stage approach was taken to the analysis of the data. Firstly, data were analysed in accordance with paradigmatic norms. Quantitative data were subjected to descriptive statistical analysis and qualitative data were subjected to thematic analysis. Secondly all data were coded and collected together using the research questions as primary codes. Thirdly, the data collected together for each research question were analysed and subjected to further thematic analysis. The analytical framework used in this project is shown in figure 3.5.

Figure 3.5: Analytical framework



3.7.1.1 Stage 1: Analysis of qualitative and quantitative data

The initial analysis of data was confined to the paradigmatic traditions of qualitative and quantitative methods. This allowed data inspection and reduction, two essential elements of the preliminary analysis (Cohen, Manion and Morrison, 2011). Quantitative data were entered into a Microsoft Excel 2013 spreadsheet where simple frequency counts of nominal and ordinal data were converted to visual representations via the chart function. This facilitated descriptive analysis of the data allowing the identification of commonality and differences in the dataset.

The filter function in excel allowed data for ODPs and nurses to be separated allowing direct comparison between the two professional groups. The aim of the study is not to determine the statistical significance of a cause and effect relationship and generalisation of this to a wider population. The quantitative data collected for this study were aimed at eliciting background information which provided census-style data. Most of the data generated was nominal data based on the participant's response to either dichotomous or multiple choice questions. These data were subjected to frequency counts and conversion of raw data to percentages to aid comparison between professional groups.

The survey questionnaire contained three Likert scales which generated ordinal data. Again, the initial analysis was by frequency count for each point on the scale. According to Jamieson (2004), the analysis of Likert scales is open to abuse by researchers who use the scalar properties of a 1 – 5 scale to perform their analyses using inferential statistical tests based around calculations of the mean and standard deviation. However, Jamieson's views are deemed limited and poorly informed by Carifio and Perla (2007) who refer to Likert's original work. They argue that the key to analysis of these items is based on the differentiation between a singular Likert-style item and a combination of such items to form a scale. They go on to argue that it is the combination of individual Likert items that forms the scale, and that the parametric tests used to analyse the scale as a whole are resistant to any skewing of the data created by the use of a 5-point response format. The current study analyses each individual Likert item and therefore follows Jamieson's (2004) approach where the mode is used as the measure of central tendency (Stewart, 2010).

The qualitative data from the questionnaire and from the interviews were subjected to an initial thematic analysis. Interviews were transcribed verbatim and primary codes were allocated based on the dimensions of human capital identified in the literature review. Each interviewee was given a pseudonym based on herbs, to eliminate gender associations. Herbs that were associated with gender (e.g. rosemary, basil) were avoided. Computer-based analysis software was not used for this process as the number of interviews was relatively small and the potential time taken to learn about the software had to

be weighed against the benefits of the ability to manipulate the data. A further consideration is highlighted by Basit (2003, citing Tesch) and Silverman (2014) that taking extracts of coded data from the transcript decontextualizes the data and leaves the researcher open to criticisms of bias. The comments feature of Microsoft Word 2013 was used to highlight and code sections of data within each interview transcript without dismantling it, thus preserving the context of the narrative.

3.7.1.2. Stage 2: Categorisation and linking of the data to the research questions

After preliminary analysis the data were linked to the primary and secondary research questions. Review of the combined data set by research question allowed links to be established between the qualitative and quantitative data. All data were then reviewed and recoded if necessary to highlight the relationships between the data and to develop the theories to support the findings. One of the major issues in mixing methods is the prospect of divergence between the quantitative and qualitative data (Fielding, 2012). Fielding suggests that this is a result of the incommensurability of methodologies and that these differences cannot be resolved empirically. However, this could simply be a matter of the interviewees not agreeing with the survey respondents, and serves to identify areas where further investigation and analysis is required. Divergence in data sets was treated by a review of the thematic codes and further analysis. Any issues arising due to divergence in the data set or anomalous findings are reported in the research findings.

3.7.1.3 Stage 3: Thematic analysis and presentation of findings

Emergent themes from the combined data were allocated secondary codes which is where the emergent theories originated. Theoretical constructions were therefore grounded in the data strengthening the construct validity of the findings. Quantitative and qualitative data were brought together within each major theme and linked to the research questions. Thus, the analysis is presented over three chapters, each chapter presenting the findings for one of the primary research questions.

Chapter 4: Findings and Analysis 1: Academic Credentials and Position in the Workforce

4.1 Introduction

The first chapter of data analysis investigates the link between academic qualifications and the practitioner's position in the theatre workforce. The conceptual framework for this is provided by the revised model of human capital theory developed and presented in Chapter 2, but is driven primarily by Becker's (1993) original human capital theory suggesting a correlation between years in education and salary. This chapter of the thesis will provide empirical evidence directly from the operating theatre relating to roles performed by Operating Department Practitioners (ODPs) and theatre nurses, linking these with salary and academic credentials. The first section of this chapter will analyse the relationship between academic credentials and position in the workforce. The analysis will then move on to examine the impact of academic qualifications on professional relationships within the department. Focus on these two areas of investigation will address the following primary research question:

What is the relationship between a professional's highest academic qualification and their position in the workforce?

4.2 The Influence of the Academic Level of Qualification on the Professional's Position in the Operating Theatre Workforce

Although this investigation focuses on Operating Department Practitioners and theatre nurses, it is important to recognise that the operating department is also staffed by a team of Support Workers. The Support Worker roles and salaries are also determined by the Department of Health's Agenda for Change and the associated Knowledge and Skills Framework (Department of Health, 2004). As

these salary Bandings provide a recognised national standard, they serve as a useful reference point against which to analyse the impact of academic credential on salary.

The health care support workforce is generally salaried at Bands 2 and 3. Some members of this workforce complete additional training to take on the Associate Practitioner role which commands a Band 4 salary (Health Education England, 2016). The recommendation from Skills for Health (2016), the Sector Skills Council for the health service, is that Associate Practitioners complete a foundation degree to become eligible for their Band 4 salary. This acknowledgement is important as there is evidence of a direct impact on professional roles as a result of the continued development of the Associate Practitioner role as this analysis will demonstrate. The registrant workforce (those with a professional qualification that provides them with eligibility to apply for professional registration) enter the workforce on salary Band 5. The academic credential required for professional registration is determined by the regulatory body (Health and Care Professions Council for ODPs and Nursing and Midwifery Council for nurses). Immediately this provides evidence to support Becker's theory; sections of the workforce completing specialist training which facilitates their progression through the organisational structure. However, as this analysis will demonstrate, things are not so clear cut.

All of the participants in this study (survey N = 60; interviews N = 11) are salaried on pay Bands ranging from 5 – 8b. The distinguishing feature between this sample of the theatre workforce and the Support Worker/Associate Practitioner workforce is that the ODPs and nurses have completed a professional qualification leading to professional registration. This qualification is approved by the respective professional and regulatory body and therefore serves as a means by which access to and exclusion from the profession can be controlled (cf. Larson, 1977). Therefore, one would anticipate registered practitioners hold a higher academic credential than the workforce salaried on Bands 4 and below. One would also anticipate that those registered professionals on salary Bands 6 – 8b hold a greater range of academic credentials than those newly qualified practitioners whose entry salary is pay

Band 5. Figure 4.1a shows the professional qualifications held by the ODPs and nurses participating in the survey and figure 4.1b those held by interviewees.

Figure 4.1a: Professional Qualifications held by ODPs (n = 38) and nurses (n = 22) participating in the survey

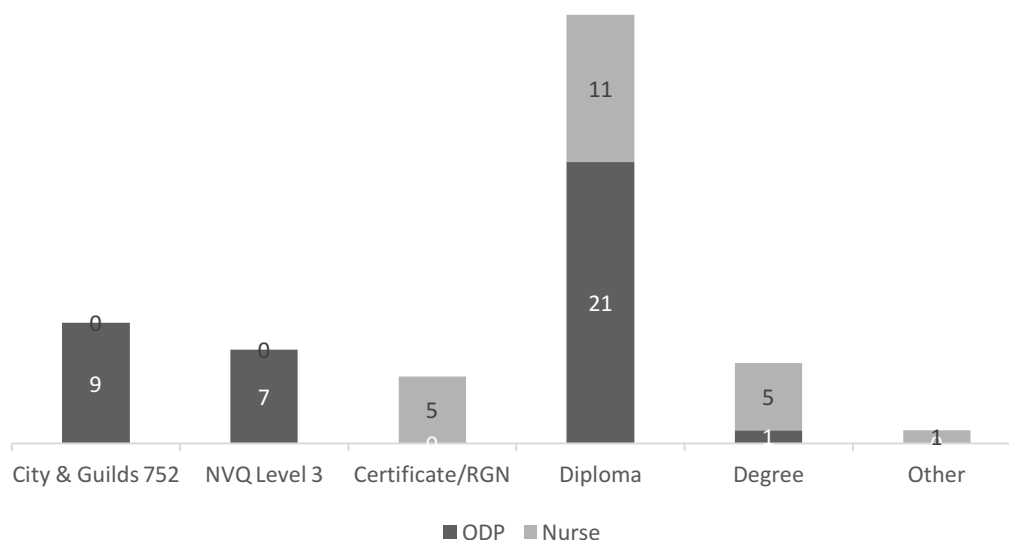
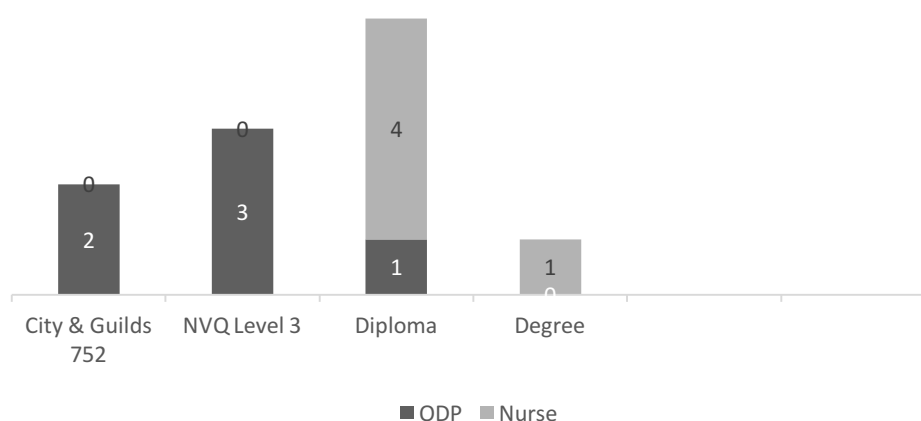


Figure 4.1b: Professional Qualifications held by ODPs (n = 6) and nurses (n = 5) participating in the interview



The current threshold professional entry-level qualification for ODPs is diploma and that for nursing has recently moved to degree. Figures 4.1a and b demonstrate that there is still a body of practitioners in possession of antecedent awards. Antecedent awards are those that provided access to the

profession prior to the current academic entry level. These are all at a lower academic level than that of the current threshold level for professional entry. However, it must be noted that these practitioners maintain their registered status as they continue to meet their regulatory body's criteria by confirming and demonstrating their fitness to practise annually (nurses) or biannually (ODPs).

Also demonstrated is a divergence in professional preparation which is evident through review of the antecedent awards. City & Guilds 752 and NVQ Level 3 were awards specifically designed and accredited to provide specialist preparation for ODPs, whereas the RGN certificate and the awards designated other status in the survey (figure 4.1a) reflect antecedent nursing-specific preparation. There appears to be convergence in the academic level of qualifications at diploma level due to the incorporation of both professions into higher education. However, it must be acknowledged that although the academic standard of the ODP and nurse awards at this level should be consistent in accordance with the Higher Education Quality Framework (QAA, 2014), these awards are contextually different. The ODP award focuses solely on working in the operating department, whereas nursing has been branch-specific, with a focus on adult, child, mental health and learning disabilities nursing.

Degree level entry is dominated by nurses and this reflects both the recent policy change to all graduate entry for nurses and, possibly, the longer association of nursing with higher education. As Larson (1977) suggests the latter stages of professionalisation are characterised by legitimisation which is based on a move into higher education. This carries with it an expectation for the move to graduate entry.

The evidence presented thus far is consistent with Beckerian human capital theory in that continued, specialised training does appear to be influencing salary level. However, the academic level of that training does not appear to have any bearing on salary as both ODPs and nurses enter their professional role on Band 5.

Becker's thesis also links human capital development to increased productivity. Here again, one would anticipate that those with higher academic credentials have a broader scope of practice and occupy more senior positions within the team.

4.2.1 The roles and responsibilities of registered practitioners in the operating department.

Survey participants were asked to identify how regularly they performed core operating department roles and some extended roles in associated areas of clinical practice (figure 4.2). Clear guidance had to be provided to participants to allow them to differentiate between the *always*, *regularly*, *sometimes* and *never* options. The responses highlight some fundamental role differences between ODPs and nurses in the sample studied, with ODPs participating in a wider range of activities than their nursing counterparts.

Figure 4.2: Roles (percentage) carried out by ODPs and nurses in the operating department and associated areas

Role	Always		Regularly		Sometimes		Never	
	ODP	Nurse	ODP	Nurse	ODP	Nurse	ODP	Nurse
Anaesthetics	68.4	4.5	15.8	-	7.9	4.5	7.9	91.0
Scrub	15.9	77.3	10.5	-	36.8	4.5	36.8	18.2
Circulating	5.3	50.0*	42.1	10.0*	42.1	15.0*	10.5	25.0*
Recovery	2.6	22.7	21.1	4.5	63.2	27.3	13.1	45.5
First Assistant	-	-	5.3	9.1	10.5	31.8	84.2	59.1
Cardiac Arrest	5.3	-	23.6	-	15.9	4.5	55.2	95.5
ITU/HDU	2.6	-	29.0	4.5	34.2	27.3	34.2	68.2
A&E/Trauma	2.6	-	21.1	-	26.3	-	50.0	100.0
Emergency Transfer	-	-	7.9	-	44.7	-	47.4	100.0

**Two respondents did not complete this section of the survey.*

The frequency counts for the data shown in figure 4.2 have been converted to percentages to provide a direct comparison of the proportion of each professional group performing each of the roles listed. The data have been divided into two groups; the top section of data reflects the core duties of operating department practice as detailed in the Health and Care Professions Council (HCPC) Standards of Proficiency for Operating Department Practice (Health and Care Professions Council, 2014a). Circulating and Scrub duties are usually performed in combination but a decision was made to separate these to

reflect the duties identified in role/job specifications for theatre practitioners. The data in the lower part of the table in figure 4.2 reflect areas of practice that practitioners develop into post-registration. Some areas (e.g. Surgical First Assistant) involve additional training and assessment which may lead to a credentialised award. The other areas of practice highlighted in the lower part of the table are accessed by demonstrating competence and building up trust relationships with other health professionals working in those areas (see section 4.3).

Looking at the primary role performed by registered professionals in the operating department (i.e. the practitioners *a/ways* performs this role), the data suggest that ODPs in this sample are more likely to work in anaesthetic and anaesthetic-related areas of the hospital (e.g. cardiac arrest, ITU/HDU, A&E/Trauma) and nurses are more likely to work in surgical and recovery related areas. The never column of data provides the greatest insight into the scope of practice for ODPs and nurses in the operating department. The assumption here is that the higher the percentage in the never column data, the fewer professionals perform that role. Looking at the never data for nurses suggests that A&E/Trauma and Emergency Transfer duties are exclusively carried out by ODPs. The data also suggests that very few nurses work in anaesthetics or carry out roles as a member of the cardiac arrest team. One explanation for this lies with the Association of Anaesthetists of Great Britain and Ireland (AAGBI) who publish guidance for their members on who should participate as a member of the anaesthesia team (AAGBI, 2012). Their guidance clearly states that non-medical members of the anaesthesia team should have met the anaesthetic care related competences forming part of the College of ODPs Curriculum Document. Due to the contextual differences in professional preparation for ODPs and nurses, this immediately excludes nurses from anaesthetic-related duties unless they have completed additional anaesthetic care training.

The main area of ODP non-participation is Surgical First Assistant (84.2% of the ODPs participating in this survey never perform this role). This role is defined by

the Perioperative Care Collaborative (PCC, 2012) and requires the practitioner to undergo further training to develop additional surgical skills such as camera holding for minimally invasive surgery and deep retraction of structures to aid surgical access. More nurses (40.9%) have some degree of contact with this role than ODPs (15.8%) as demonstrated by aggregating the *regularly and sometimes* data. This may be explained by viewing the First Assistant role as a natural extension of the primary role in scrub and circulating duties. However, knowledge of this role is also required by ODPs, which is reflected in the latest iteration of the Health and Care Professions Council Standards of Proficiency for Operating Department Practice (Health and Care Professions Council, 2014a). The never column data suggests that there is a larger percentage of nurses who never perform recovery and circulating duties compared to ODPs. The data also demonstrates that although twice as many ODPs never perform scrub duties when compared with nurses, 63.2% of the cohort of ODPs sampled do, in fact, perform for some time in the scrub role.

It is evident from this analysis that the ODP and nursing scopes of practice differ. Although, in this sample of practitioners, ODPs are more likely to work in anaesthetic related areas of practice, there is evidence of ODPs working across all core areas of the operating department and their work in areas associated with the operating department such as intensive care and supporting trauma services. The nurses in this sample are more likely to work in surgical or recovery areas. This is despite more nurses in this sample holding a degree as their professional entry qualification and most ODPs and nurses in the sample holding the academically equivalent diploma level entry qualification.

It appears that the contextual differences between nurse and ODP initial training account for the differences in their scope of practice. Here the specialist preparation, guided by the relevant professional body, results in the development of pre-registration curricula with a pre-defined purpose. Following Larson's (1977) professionalisation process, both the ODP and nursing professions are seeking legitimisation through their development of a highly specific body of knowledge and association with higher education. However, neither of these professional groups has secured a monopoly over service

delivery in the operating department. This may be due, in part, to the shortage in supply of registered practitioners for work in the operating department leading to service providers looking for alternative ways to staff their department, i.e. if there is a shortfall in the supply of ODPs, then nurses should be employed. As organisations look for alternatives to maintain their service delivery, opportunities arise for emergent roles to be consolidated, which is the case at the moment with the Band 4 Associate Practitioners in the operating department. The interesting facet of this development is the impact that this has on the registrant workforce leading to a questioning of the need for a formal academic preparation for work in the operating department.

Tarragon is a Band 7 nurse interviewee with 27 years' experience in the NHS. In this interview extract, Tarragon is critical of the increasing academic focus in nurse training.

I've got two people in this area that [have] done their nurse training, they've done three years, and at the final post they've failed because they've failed an assignment. Now one of those is currently a Band 4, one of those is applying to be a Band 4, so they want to do the nursing scrub. The one, she's been doing the Band 4 now for about three or four years, she is such a good worker. She takes major cases, you know, she can do that. But she failed an assignment so she couldn't get her nursing . . . And I think that is wrong. To take someone through three years of training and then fail them right at the end. If there was a problem with her actual nursing, that should have been highlighted sooner, do you know what I mean? . . . I don't understand that. Because we're so short of nurses nationwide.

Here the academic nature of pre-registration preparation is presented as a barrier for some in accessing the profession. The first key issue raised by Tarragon is the waste of time and money in progressing these students through their nursing award only to fail the final assignment. To emphasise this waste Tarragon sets this scenario against the backdrop of a national shortage of nurses. The second key issue raised in this interview extract is the nature of the roles now performed by the Band 4 Associate Practitioner. It is clear that Band 4 personnel perform the 'nursing scrub role'. Although the title given to this role by Tarragon is linked to a registered professional group, it appears that non-registered personnel can also perform this role. This example of a failure of one

registered professional group to monopolise a specific area of service delivery places the registrant workforce in a precarious position. If the Band 4 workforce are developed into the scrub and circulating roles, they become a more cost-effective alternative due to their command of a lower salary level.

A third issue raised by Tarragon relates to a perceived over-emphasis on academic achievement in the nursing curriculum. The ex-student nurses referred to were perfectly able to carry out their clinical duties adequately but failed to attain the required academic level. Therefore, an argument develops that the academic nature of the award serves as a barrier to professional entry for those that are naturally good at caring for people. Thus a fissure between graduateness and employability is opened which resonates with the differentiation made by Steur, Jansen and Hofman (2011). The Band 4 Associate Practitioner is performing the same surgical role as the Band 5 ODPs and nurses in the department, but has a contextually different credential which appears to be based on their preparation for a specific role (i.e. their employability).

Tarragon also questions the way in which assessment decisions are made about, in this case, nursing students, based on a polarisation of university- and practice-based assessment. This resonates with the differentiation between theory and practice made by Bearman *et al.* (2016) and alluded to by Ousey & Gallagher (2007). The inference in Tarragon's statement is that university-based assessment takes precedence over practice-based assessment. As the students referred to had passed their nursing competence assessments, Tarragon feels that their knowledge of underpinning theoretical concepts had been demonstrated in the form of an authentic assessment (Litchfield and Dempsey, 2015). Thus, the over-academicisation of nurse education is linked to attrition which contributes to the overall shortage in the supply of newly qualified nurses.

Added to this is the policy requirement for Associate Practitioners to undertake a foundation degree as part of their preparation for their scrub role (Skills for Health, 2016). The academic standards for foundation degree are the same as

those for higher education diploma. The outcome is that two groups of the theatre workforce (ODPs and Associate Practitioners) are developed to the same academic standard, but command different salary Bandings. However, the scope of practice of ODPs remains much broader than that of the Associate Practitioner.

Although the Band 4 workforce is developing and specialising the support worker role, this is not universally supported due to its impingement on an already established professional role. In the interview with Garlic, a Band 6 nurse, the discussion moved on to look at the impact of graduate entry to the health professions, which prompted discussion relating to the Band 4 support workers:

. . . we've had an influx of these Band 4 nurses who are health cares [Support Workers] who have been trained to scrub. And they aren't actually on a register, they're supervised by you. So, they're doing my job, under my supervision without being registered . . .

Garlic was asked what impact this would have on the registrant workforce:

It's difficult to say because obviously a lot of people think 'oh well I can do the job I want to do without going to university. I can just do this course where I'm supervised'. I think a lot of people who are qualified nurses or ODPs are at a point where they think 'well what is the point of going to university for three years to study to be a nurse or an ODP when you can take the fast-track, two years and do the job anyway, and not have to pay for a registration or be in the union or anything like that'.

Here the concerns of the registered professional surround a revised division of labour and the lack of regulation of the Band 4 workforce and the fact that these workers are performing the nurse's role. Garlic's comments show concern for their own professional registration as a result of their direct supervision of the support worker. There is also concern that the body of Band 4 workers will increase as this is viewed as a better option than studying at University and incurring the debt associated with professional study.

This highlights the dichotomous relationship between the academic and the vocational associated with the initial training of health care professionals. In particular, the tensions created by the development of one sub-group of the

workforce which then impacts directly on an established professional group (Law & Aranda, 2010). Garlic, like Tarragon quoted earlier, does not refer directly to the training undertaken by the Band 4 workforce. It is inferred that the focus is on the vocational, where the Band 4 workers receive on-the-job training and development which is focused specifically on the scrub and circulating roles. This section of the workforce thus becomes more productive and employable in these areas of practice.

A natural extension of Garlic's observation is that a new way of working in and staffing the operating department is emerging where the health care support workforce will extend its role into areas of work currently undertaken by the registered professionals. Subsequently, the numbers of registered professionals in the department will be reduced as their role contracts (c.f. Nancarrow and Borthwick, 2005). This is partly as a direct result of the cost to individuals of studying at university, and partly due to workforce need. The focus of the registered professional potentially becomes further specialised into advanced practice and management. Essentially health care delivery will be provided by practitioners at two levels thus reintroducing the two-tier service that many critics of graduate entry to nursing feared. Support workers will provide the daily, direct care required by the patient and the registrants will assume supervisory positions (Cockayne, Davis and Kenyon, 2007).

The literature reviewed in this study highlights the potential reintroduction of a two-tier service and there are pockets of evidence emerging to suggest that this is becoming a reality based on the changing mind-set of graduate entry students. During the interview with Parsley, a Band 8b ODP, the discussion turned to this aspect of graduate entry and students' motivations for entering, in this case, nursing.

. . . we had to turn a patient on their side post extubating. Not a problem. The patient's head's towards me, and it was after a bowel operation. And obviously we changed the patient [removed soiled sheets]. And I look across – because obviously it was quite a large patient; so I'm holding the patient and there's not a lot else you can do. So I asked the student nurse that was opposite, who'd been with us for some weeks I have to

say, 'can you clean the patient?' And she said 'I've got a degree. I don't do that'. As I said to you before, red rag to a bull. So she got a few words. Look, you know, at the end of the day you're a nurse and that's . . . whether you've got a degree or not, you're still going to be wiping patients' bottoms and that's . . . if you become a nurse for that reason, to get your degree to be a manager.

During this section of the interview Parsley became quite passionate about the need to deliver basic patient care, despite the academic credentials of the student. This episode highlights the concerns expressed in the literature regarding how the basic care needs of patients are met (see Law & Aranda, 2010). If graduate entry nurses and ODPs feel that their role does not extend to attending to the fundamental care needs of the patient, a gap in service delivery is created which places the patient at significant risk. It therefore becomes imperative to fill this gap and an option under consideration at present is the development of the support worker workforce to Associate Practitioner level.

The research findings and analysis to date shows that there is no difference in salary between ODPs and nurses at the point of entry into professional practice, despite differences in entry level qualification. This is because of the terms and conditions of employment derived from the Agenda for Change process, defined by the Key Skills Framework (Department of Health, 2004). Here role specifications are determined by the generic and specialised competencies displayed by the worker and there is a clear demarcation between support worker roles (pay Bands 1 – 3), Associate Practitioners (Band 4) and registered professionals (Bands 5 – 8). Despite the differences in the academic level of professional qualifications and the scope of practice between ODPs and nurses, all newly qualified professionals enter at pay Band 5.

4.2.2 The role of academic credentials in the development and progression of the professional workforce in the operating department

Survey respondents were asked to reflect on the impact of increasing the academic credential for professional entry. The open question 'How do you think the possible move to graduate entry in ODP and the move to graduate

entry in nursing will impact on your role in the operating department?’ was included to allow respondents to articulate their thoughts around this. The following responses were typical:

So far the changes to diploma/degree has not affected my role. But promotion may become an issue due to essential criteria on applications for higher banded positions
(Band 6 Nurse)

Think we will be required to all attain the same academic standard or professional future opportunities will not be fair to all.
(Band 6 ODP)

Impact will be minimal on myself, but as a Band 6 I may feel under pressure to up my qualification from diploma to degree.
(Band 6 ODP)

All of these responses suggest an impact on future development or promotion opportunities. The perceived lack of impact on their current position is understandable as these respondents are presumably working proficiently in their role. These views are supported by responses to Likert-style items within the survey. Respondents were asked to rate their level of agreement with statements on the pressure placed on non-graduates to complete a degree and enhanced graduate employability (figure 4.3)

Figure 4.3: ODP and nurse responses relating to promotion and employability

a. Professionals who do not hold a degree will be placed under pressure to complete one

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	10.5%	47.3%	21%	15.8%	-	5.3%
Nurses (n = 22)	9.1%	45.5%	13.6%	9.1%	9.1%	13.6%

b. ODPs/Nurses holding a degree are more employable

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	7.9%	28.9%	34.2%	23.7%	-	5.3%
Nurses (n = 22)	9.1%	27.3%	22.7%	13.6%	9.1%	18.2%

The data presented in figure 4.3 complements the open comments in the survey in that 47.3% of the ODPs sampled and 45.5% of the nurses agree that non-graduate professionals will be placed under pressure to complete to complete a degree (figure 4.3a). There is less certainty with regard to graduate employability (figure 4.3b). The modal average for ODPs (34.2%) lies in neither agree nor disagree. Overall, nurses agree (27.3%) that graduates are more employable.

These results indicate that registered professionals may be looking to enhance their chances of promotion by increasing their academic credential. To determine the extent of this phenomenon in the current workforce, participants in the survey were asked to provide data not only relating to their salary, role and professional qualification, but also their highest academic credential. From the data provided, a subset of the wider sample population currently placed on pay Bands 6 and 7 was used to examine the impact of academic credential on their career development. Demonstrating an individual profile for each of these practitioners facilitates exploration of their academic credentials in relation to their salary and years of service (figure 4.4). This subset comprises 29 survey participants; 11 nurses (profiles denoted by N_n in column 1 of figure 4.4) and 18 ODPs (profiles denoted by O_n in column 1 of figure 4.4). Two of the participants (nurse N11 and ODP O18) are on salary Band 7 and all of the participants with the exception of N1 and O1 have in excess of 10 years' service. Years of service is included as a potential determinant of promotion due to the experiences gained by the practitioner.

It must be noted that the respondents in this survey identified their length of service at the point of completion of the survey, which gives no indication of their length of service in their Band 6 or 7 position. Participant N1 is of interest as one of only 2 participants in this subset that holds a degree as their professional entry qualification. N1 has substantially less experience in terms of years in service than all of the other participants and their promotion could be as a result of the graduate characteristics developed during their pre-registration study.

Figure 4.4: Individual profiles for nurses (signified by N) and ODPs (signified by O) on Band 6 and 7 salaries

Nurse (N)/ ODP (O)	Salary Band		Service (Years)			Professional Qualification						Highest Qualification							
	6	7	1-3	7-9	10+	C&G	NVQ	Cert	Dip	Deg	Other	C&G	NVQ	Cert	Dip	Deg	PgCert	PgDip	Doc
N1	•		•							•						•			
N2	•				•						•				• +				
N3	•				•						•			•					
N4	•				•			•						•					
N5	•				•				•						•				
N6	•				•						•					• +			
N7	•				•					•						•			
N8	•				•				•						•				
N9	•				•						•					• +			
N10	•				•				•						•				
N11		•			•				•						•				
O1	•			•					•							• +			
O2	•				•		•										• +		
O3	•				•	•						•							
O4	•				•		•						•						
O5	•				•	•						•							
O6	•				•				•						•				
O7	•				•	•									• +				
O8	•				•	•											• +		
O9	•				•	•													• +
O10	•				•		•						•						
O11	•				•		•								• +				
O12	•				•	•						•							
O13	•				•	•						•							
O14	•				•		•						•						
O15	•				•		•								• +				
O16	•				•	•						•							
O17	•				•				•						•				
O18		•			•		•						•						

• + denotes a highest qualification at a higher academic level than the professional qualification

In the nursing subset three respondents have a higher academic credential than that of their professional award. Nurses in this sample that completed a professional qualification at the current professional entry credential of degree or the immediate antecedent of this, the diploma, have not taken the opportunity to improve on this. None of the nurses in this sample have gone on to post-graduate study. Seven of the ODPs in this sample have a higher academic credential than that of their professional award. The higher credential is at least at the same academic level as the current professional entry requirement of diploma. Four of the ODP respondents exceed the threshold professional entry level, three of these participating in post-graduate study.

In the nursing subset, six Band 6 and the Band 7 practitioners have a professional and highest academic credential that falls below the current professional entry level of degree. However, it must be acknowledged that the move to degree level entry for nursing is a relatively recent policy change. Of the ODP subset, nine have professional and highest credentials that fall below the current professional entry threshold of diploma, including the Band 7 practitioner.

The survey data suggests that academic credential may not be the determining factor in gaining promotion as a number of practitioners in this sample on Bands 6 and 7 have not improved on their professional entry level credential. There is an indication that length of service could play a part in gaining promotion, although the graduate nurse, N1, has substantially less experience than all other participants. This resonates with the findings of Lin and Huang (2005) in that high stocks of human capital are superseded by centrality in social networks as the key mediator for promotion. However, the position in social networks was not examined in this study and one has to work on the premise that social networks are built experientially as a result of the time served in the role. This is not a satisfactory explanation for nurse N1, but this individual may have utilised their graduate characteristics to foster these relationships in a shortened period of time.

The practitioner's position in the workforce was followed up during the interviews. The interviewee profiles are shown in figure 4.5, and it should be noted that some of the interviewees may have also participated in the first stream capture of data via the survey. Therefore, some Band 6 and 7 profiles may be a direct match of the profiles shown in figure 4.4.

Figure 4.5: Individual profiles for interview participants

Professional Group	Service in Profession (years unless otherwise stated)	Salary Band	Professional Qualification	Highest Academic Award
Nurse	21	7	Diploma	Diploma
Nurse	20	8a	Diploma	PgDip
Nurse	14	6	Diploma	Degree
Nurse	10	6	Diploma	Diploma
Nurse	1 month	5	Degree	Degree
ODP	32	7	C&G	Degree
ODP	26	6	C&G	Doctorate
ODP	23	8b	NVQ	Masters (studying at present)
ODP	16	6	NVQ	Degree (single module only)
ODP	12	6	NVQ	Degree (single module only)
ODP	8	5	Diploma	Diploma

Shading denotes highest academic award at a higher academic level than professional qualification.

The interview participant profiles unsurprisingly show similar characteristics to those in the survey group. Three ODPs are currently undertaking either level 6 (degree) or level 7 (masters) modules and, as their pathways are not complete, have not been considered to hold a higher credential than their professional qualification. Interviewees who hold a higher academic credential than their professional award all completed the higher award post-qualification. This is also the case for the ODPs who have completed degree level modules. Those interviewees whose highest academic award is at the same level as their professional award confirmed that their academic credential was gained via their professional preparation. The trend relating to time in service and salary band identified from the survey data is replicated in this much smaller group of participants. Those on the higher salaries have the greatest number of years'

service. The exception to this is the Band 8b ODP who has fewer years in service than the Band 7 and one of the Band 6 ODPs.

To establish the career pathways and to determine the role of academic credentials and experience in this, all Band 6, 7 and 8 interviewees were asked how they had progressed into their current position. All these interviewees acknowledge the increasing role that academic credentials play in promotion prospects and the need for professionals with antecedent awards to upgrade their credential to remain competitive in the promotion stakes as Dill, a Band 6 ODP describes:

I had a conversation with some very senior nurses in the trust over the last couple of weeks . . . and part of that conversation with the senior team was that a degree will become necessary to progress. That people will not be able to move from a Band 5 to a Band 6 without a degree. But if you're all coming out with a degree and you're only employed as a Band 5, is the expectation for somebody to have a Masters level degree to move on to a Band 6? So there seems to be some mismatch there.

This section of interview raises two issues: the prospect that an essential criterion for all promotion from Band 5 to Band 6 will be the possession of a degree; and the question raised about those entrants to the professions whose entry-level qualification is degree. The first issue corroborates survey data in that it is perceived that there will be pressure placed on those professionals with antecedent awards to complete degree level study. The second issue is reminiscent of K. Roberts' (2009) socio-educational upgrading. Roberts' analysis reflects on the pace at which people are improving their qualifications, creating a rise in the number of graduates entering the job market and over spilling into roles that once carried non-graduate status. As graduates fill these roles there is an expectation that graduate entry becomes the norm for the occupation. This interviewee is presenting this situation in a slightly different format by asking 'if a degree is essential for progression from Band 5 to Band 6, then what do the graduates need to do to progress?' This interviewee suggests that the progression credential to Band 6 is inflated to the next academic level, i.e. Masters at academic level seven.

This may be the case for the future, but it appears that for some interviewees, focusing on their academic credential was an important factor in planning their progression within the organisation. When asked the reason for progressing to graduate status after their qualification as a nurse, Oregano, a Band 6 nurse was very clear:

Career progression. To get the same qualification as some of my peers had already got. Because not long after I qualified they changed the nursing training so that it went to a full degree programme. They took the diploma away completely so some of the students that were coming through had more . . . were more highly qualified than I was. And I felt that to be on the same level as them I needed to up my game and increase my level of competition.

Possession of a degree appeared to benefit Oregano:

. . . when I'd completed my degree, some Band 6 posts came up and I applied, along with two or three other people, and even though I was the person with the least experience in recovery, I got the post because academically I'd built myself up into a more substantial position than some of that competition had.

Oregano had a clear idea of what was needed to be competitive when it came to promotion. In effect, they have benchmarked their current position against the new-breed graduate entrants and have determined their academic development based on remaining competitive with graduate entrants. This interviewee felt that they benefited from their academic credential in being able to use their graduate attributes; they saw themselves as no better than their competitors for promotion in terms of experience and clinical prowess so the only difference that could have contributed to their success was their academic credential and the graduate characteristics demonstrated as a result of this.

The interesting aspect of this passage of interview does not relate to whether the degree level credential was influential in their success, it is how the individual positioned themselves to be competitive. There are echoes of Strauss's (1962) typology of career turning points and their characteristics in this extract and in the discussions with other interviewees. Oregano is using their benchmarking activity to forecast the requirements for promotion. This

progression pathway is also evident in the interview with Thyme, a Band 7 ODP:

. . . the person specs for the jobs had changed for a Band 7 role to say that you had to have a degree to . . . So, my thought behind that was if I need to apply for a job, then I will need a degree.

Thyme's undergraduate studies were also prompted by the need to remain competitive. However, Thyme is looking back from a position of seniority and benchmarking to ensure that they can maintain their competitiveness. Although Strauss (1962) would also categorise this as forecasting, the differences in approach between Oregano and Thyme presents the opportunity to develop an alternative perspective based on their benchmarking activities. Oregano was clearly looking forward to the future and engaged in *prospective benchmarking*. Here the key question for Oregano was 'what do I need to do to make myself competitive and improve my chances of promotion?' Thyme was looking back and engaged in *retrospective benchmarking*. The key question for Thyme was 'what do I need to do to make myself competitive so that I can maintain my current position?'

For other interviewees, serendipity (Strauss 1962) formed the major turning point in that they entered their managerial role by accident or out of necessity. The individual performed well in their senior role and circumstances were such that they continued in this role as Tarragon, the Band 7 nurse notes:

I'm only the Band 7 now because my predecessor took a career break and I was her deputy. So at that point I came in as an acting Band 7, and she decided not to come back. Because I'd then been doing it for 12 months, it was 'well I've been doing the job, I might as well now apply for the job'. Which I did and that's why I'm the Band 7 now. Had she not gone I was quite happy just to be a senior Band 6 . . . I'm not overly ambitious, I just want to come in and do my job and do a good job. And that's it for me. That's what matters. Because, at the end of the day, we're just here for the patients.

Tarragon's transition into their senior role was experiential and can be contrasted against Oregano's forecasting. Transition into a senior role for a limited period of time allows the development of social networks and develops the organisational knowledge required for performing the job. Stepping into the

role for a short period of time also gives the individual a taster of what the role involves and allows the individual to make an informed choice when it comes to applying for the full-time position. Oregano was reliant on their academic characteristics, using these to integrate themselves into their new role.

Part of the justification for the move to graduate entry for nursing is the legitimisation of the professional status of the nurse, leading to enhancements in the professional relationships formed within the health care setting (e.g. Burke and Harris, 2000). The second part of this chapter will focus on how academic credentials impact on the potential to form these professional relationships.

4.3 The Influence of Qualification on Professional Relationships and Interaction in the Operating Department

The second area of analysis for the first research question surrounds the influence of academic credentials in the development of professional relationships. The research literature presents a discourse of improved interprofessional relationships which evolve as a result of the increased status and knowledge demonstrated by the graduate body of professionals, thus creating a multiprofessional approach to clinical decision making (e.g. Burke and Harris 2000). To examine this dimension of human capital development, participants in the survey were asked to rate their perceptions via three Likert-style items relating to communication skills, leadership skills and working in partnership with other professionals (figure 4.6). These characteristics are deemed essential in the research literature, providing the justification for the move to graduate entry nursing in the fostering of professional relationships.

Figure 4.6: Responses relating to professional relationships

a. Studying at degree level will develop my communication skills

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	5.3%	18.4%	34.2%	34.2%	5.3%	2.6%
Nurses (n = 22)	27.3%	45.5%	13.6%	9.1%	4.5%	-

b. Degree level study will allow me to develop my leadership skills

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	10.5%	31.6%	36.8%	15.9%	2.6%	2.6%
Nurses (n = 22)	27.3%	40.9%	18.2%	9.1%	4.5%	-

c. Moving to degree level is necessary if ODPs/nurses are to work in partnership with other health professions such as medicine

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	5.3%	18.3%	34.2%	31.6%	5.3%	5.3%
Nurses (n = 22)	4.5%	18.2%	13.6%	27.3%	22.8%	13.6%

The responses provided by ODPs and nurses to these items demonstrates divergence between the professional groups. Nurses agree (45.5%, figure 4.6a) that their communication skills will be developed by studying at degree level, whereas the ODP responses are split between neither agree nor disagree (34.2%) and disagree (34.2%). The difference in responses could be attributed to the longer association of nursing with higher education and the extended discourse surrounding the perceived benefits of the move to graduate entry for nursing. The results for the item relating to leadership (figure 4.6b) are not so clear cut. The most common response for ODPs lies in neither agree nor disagree (36.8%). However, 31.6% of the ODP sample agree that studying at degree level will develop their leadership skills. The most common response for the nursing sample lies in agree (40.9%) which is supported by 27.3% of the sample strongly agreeing. These results again could be explained by the

nursing profession's association with higher education. The body of literature around the move of the ODP profession to graduate entry is sparse and therefore the ODP cohort remain undecided due to the lack of information on which to base their decision. However, a number of ODPs and nurses are involved in post-registration, undergraduate study and their degree pathway includes a specific module on leadership which could have impacted on this outcome.

The final area addressed by the Likert-style items relates to the development of professional relationships (figure 4.6c). Again the ODP sample appears undecided (34.2% in neither agree nor disagree), but 31.6% of them disagree with this statement. There is disagreement within the nursing sample with 27.3% of the sample disagreeing and 22.8% strongly disagreeing with the statement. This aspect was followed up in the interview strand of data collection, but before the data from this are analysed and discussed, two further Likert-style items were included in the survey. These asked respondents directly about the link between the academic credential and professional status and credibility (figure 4.7).

Figure 4.7: Responses relating to academic credential and professional status and credibility

a. Holding a degree increases professional status and credibility.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	5.3%	52.7%	28.9%	10.5%	-	2.6%
Nurses (n = 22)	18.2%	36.4%	22.7%	13.6%	9.1%	-

b. Degree level professional entry will enhance professional status

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	2.6%	57.9%	15.8%	15.8%	2.6%	5.3%
Nurses (n = 22)	18.2%	13.6%	36.4%	13.6%	4.6%	13.6%

The ODP sample is consistent in their responses between the two items with the modal average for each item in agree, indicating some support for the contention that professional status is enhanced by possession of a degree. The nurses however, show variance in their responses. In figure 4.7a, the most common response is agree. However, this shifts to neither agree nor disagree in 4.7b. This could be explained in one of two ways. The nursing cohort may have misinterpreted or misread the statements, or the nurses are making a distinction between their personal possession of a degree and the status of the profession as a result of the move to entry. The academic entry level to the profession is determined by the regulatory body who are in turn influenced by the professional bodies and the government. Once the academic credential is determined, it becomes a national standard and must be achieved by every professional wishing to access the professional register. The difference in nursing responses to these two items may reflect their view that once possession of a degree becomes the national standard, it becomes devalued (akin to Dore's, 1997, diploma disease) and therefore does not carry the academic and professional kudos that it once did.

To explore these issues further, interviewees were asked about the value of graduate entry, with a focus on the enhancement of professional status. Two strong themes emerged from the interview data. The first relates to experience and the second to access to interprofessional training and development. Both of these themes are associated with the development of a suitably broad knowledge base and there is some divergence between the interviewees as to whether this is developed as a result of doing the job, or whether academicisation of the professional preparation facilitates this.

4.3.1 The role of experience

Experience was used as the thematic code to consolidate the initially allocated codes of seniority, length of service and clinical ability. The interview with Bay, one of the Band 6 ODPs, demonstrates that this practitioner's status was enhanced by working hard and embracing the opportunities to gain a breadth of experiences.

To be given the opportunity to run the department; hands on experience at running a department and making the decisions for yourself and knowing that you'd got somebody there. If you did make a wrong decision or you found out it was the wrong decision, you'd got somebody there saying, 'well it's your decision and I'll support you no matter what'. I don't think having a degree would have changed the way I'd have managed the department whatsoever.

For Bay, the development opportunities afforded to them by their line manager gave them the opportunities to work with a range of people and develop their relationships within the organisation. This resonates strongly with the findings of Lin and Huang (2005). Although Bay's social networks were not mapped and analysed, it seems as though their experiences may be moving them from the periphery of a social network in the operating department and providing them with a more central role. In this position new networks are established, thereby strengthening the practitioner's position within the workforce. In the context of their clinical practice, working with a wider range of people, across all grades, showcases their ability to a wider audience. One important aspect of Bay's development was the support offered by their senior colleague when mistakes were made. Thus this experiential transition is the major determinant in the development of professional relationships for this individual. Bay is categorical in their rejection of academic credentials as influential in these developments.

The individual's position in the organisational hierarchy was also the key to developing relationships for Sage, the Band 5 ODP interviewee. Sage started off the following section of the interview by providing some agreement that academic credentials are influential in the formation of professional relationships. However, as the interview progressed and Sage thought about this in detail they came to the conclusion that assumptions are made about the qualifications held by senior members of the workforce:

You see it every day, where a surgeon will speak to, say a Band 5 he knows is quite junior with little or no respect, but if Sister walks in or a Senior ODP, or Senior Staff Nurse, the attitude changes slightly. But I think that is down to . . . it's not a global thing in theatres. It's an individual . . . and there are people in theatre that see seniority or more qualified demand more respect. The assumption is if you're senior, you're more qualified. It's not everyone's opinion, but it is an opinion and

I should imagine it's not just in theatres; it's everywhere. It goes the other way as well. You have a consultant nobody will argue with, but if it's a registrar then they'll say, 'no sorry, we're not doing that'.

Sage reflects on the impact of seniority and a professional's position in a hierarchy across all professional groups. Although salaried at Band 5, Sage has 8 years' experience in theatres and is therefore well integrated within the department. Their experience suggests that some senior members of the team carry a gravitas that appears to command respect. The very fact that these practitioners have a number of years' service is associated with an increased knowledge and therefore this experience makes them more qualified than junior colleagues. Conversely a perceived lack of experience appears to breed some lack of respect in that junior medical staff are the most likely to be told 'no'. This is suggestive of practitioners at all levels in the organisation progressing through a rite of passage where respect is developed as seniority is achieved through years of service. Their rite of passage involves developing the skills and knowledge, relating to both clinical practice and organisational structures, and developing the networks which take them from the periphery to a central position in their area of work. This is summarised nicely by Tarragon, the Band 7 nurse interviewee, who when asked what they thought gave them credibility when working with other professionals stated:

I think as long as you understand what you're talking about, which implies that you have to have a certain level of intelligence in any case . . . And if you can come across and show that you do understand and you can put that across, and then it's, to me . . . it's just about respect. You've got to have mutual respect across, so whatever Band you're working to, whether it's a Band 2 or a Band 8 or beyond, or consultants, there's got to be that respect there. And as long as you can communicate on that level, to me that's what you need. Show an understanding . . . But I think that is more to do with on the job really than actually getting a degree.

The second emergent theme from the interviews relates to interprofessional working and development.

4.3.2 The role of interprofessional training and development

Interprofessional education forms an integral part of pre-registration health training (e.g. Health and Care Professions Council, 2014b). This has been

supplemented in recent years by a focus on human factors training. Human factors have been identified as a major cause of adverse incidents in health care where there is a tendency during clinical situations for the care team to lose spatial and situational awareness by focusing on one aspect of treatment rather than stepping back to review the situation as a whole. Working interprofessionally, human factors training is designed to empower all members of the multi-disciplinary team to be able to speak out and intervene in the best interests of the patient (National Quality Board, 2013). It is the experience of some of the interviewees in this study that this type of training has impacted on the working relationships of the theatre team by breaking down some of the boundaries that existed between the professions.

Things have changed over the last five, six or seven years that we're trying to erode this natural hierarchy. . . a lot of the issues around human factors training has brought this in. That individuals with knowledge and skills within their own areas are able to make suggestions or help with the decision making within clinical emergency scenarios. I was involved with one a couple of weeks ago in the anaesthetic room. The anaesthetist lost track of time, or focused on doing something else and the patient became very desaturated [low oxygen levels in the blood]. It was only until I said "your sats are dropping I think we need to put some oxygen back on", because we'd tried to intubate two or three times. And he looked at me and said "yeah, OK". I don't know whether that comes with experience . . . but the issues around human factors are trying to get more health care professionals to be able to challenge and make decisions. And I think that the medics that are coming through now are more aware of that as well and are more receptive to suggestions to . . . more experienced individuals making suggestions and they don't just dismiss you as 'you're only an ODP or you're only my hand-maiden' or whatever. And I think the whole culture's changing. I'm not saying it's perfect, but we are making inroads in that.

(Dill, Band 6 ODP)

This example demonstrates how a potential clinical emergency was averted simply by Dill reporting their observations and making a suggestion to the medical practitioner. One aspect of this section of the interview is Dill's linkage between their confidence to speak out and their experience in the ODP role. It is becoming evident that working relationships in the operating department are developed experientially and are based on the clinical competence of team

members. Is it possible to speed this process up by introducing a multi-disciplinary approach to training? Thyme, the Band 7 ODP suggested it can by modifying the behaviours of some practitioners:

I think there's an element that may be missing, and I know there's some anyway . . . Edinburgh were doing a course about people's attitudes towards work and how they developed their own team working and . . . It's like all the human factors things isn't it? I sometimes feel that some of that's missing around how people communicate with one another, how they build up relationships. Some people just do it naturally, don't they? Other people have to work at it. They don't know how to do it? [Human factors training is] basically saying this is how you need to behave if you want to achieve x, y and z. And it's all about safety at the end of the day . . . if you've got those clear lines of communication.

This comment demonstrates how Thyme links professional status and credibility first to experience and then to the interprofessional nature of human factors training. One first has to demonstrate ability to do one's job irrespective of academic credential. However, human factors training and development in an interprofessional environment sets the parameters for acceptable behaviour and develops confidence in communicating with other professionals.

For these practitioners, academic credential is not influential in developing professional relationships. However, all of these practitioners with the exception of Sage (Band 5 ODP) hold antecedent awards, and all practitioners have at least eight years' experience in the department. The experiences of these practitioners may not reflect those of very newly qualified practitioners. Mint, a newly qualified Band 5 nurse with only one months' experience in the operating department was interviewed. Although it appeared that they were confident with their position in the workforce, it was really too early for them to say what impact their graduate status has on the development of their professional relationships. When asked whether their communication and clinical decision making skills were enhanced by their graduate status they replied:

Yeah. Probably. Yeah, because we did a lot of work around communication throughout the three years [nurse training period]. We had two practical assignments about communication and having effective handovers and that kind of thing. So we did a lot of work on that and a lot of work on decision making as well as the key modules.

In this extract Mint reflects on the benefit of the communication exercises carried out as part of their pre-registration preparation as important in building their confidence for clinical practice. However, when asked if they felt their status had improved as a result of their graduate standing

I don't think so. When you tell them they just say 'congratulations' and it's quite a nice feeling that you've got a degree. But I've only had it for a month so it hasn't been that long yet.

The data analysed in this section demonstrate the difficulties associated with attributing professional status and credibility directly to academic credentials. Although Mint, the Band 5 nurse interviewee suggests that their academic development gave them confidence in communicating in a multi-professional environment, for the other interviewees status and credibility were developed over time by demonstrating clinical competence and gaining broader, organisational experiences as alluded to by Brooks and Everett (2009).

4.4 Conclusion

The data analysed in this chapter suggest that it is difficult to demonstrate the relationship between a professional's academic credential and their position in the workforce. The analysis shows a difference in scope of practice between ODPs and nurses based on variances in their pre-registration training. However, scope of practice and the academic level of the professional qualification has no impact on entry level salary as this is determined through alignment of job role to a nationally accepted framework. The main determining factor in promotion and progression through the organisational structure appears to be experience, although some practitioners work at enhancing their promotion prospects by gaining additional qualifications. The key to developing professional relationships and mutual trust and respect in the operating department is through a combination of experience and interprofessional training, particularly in the form of human factors training. The findings and analysis presented in this chapter indicate that it is the ability to perform in one's professional role that appears to be the main determinant of position within the workforce.

Chapter 5: Findings and Analysis 2: The Benefits of Investment in Human Capital Development for the Individual and the Organisation

5.1 Introduction

Having established the impact of academic credentials on the practitioner's position in the workforce and development of working relationships, the analysis now moves on to investigate how practitioners invest in their human capital and what influences their decision to do so. The analysis will also explore the benefits of increasing the stock of human capital for the individual and the organisation. The focus of this chapter is on the registrant operating department workforce who, as registered professionals, are obliged to participate in continuing professional development (CPD). The individual's participation in CPD activities is reviewed by the professional regulatory body who either sample the CPD activities of a small percentage of the profession at the point of re-registration (Health and Care Professions Council, 2011), or by operating a process of revalidation which must be completed at the point of re-registration (Nursing and Midwifery Council, 2015b). Within these processes examples relating to what constitutes appropriate CPD activity are provided by the regulatory body, but there is no requirement for the professional to undertake any formal, credentialised study (study leading to an academic qualification). There is also no requirement for the registrants with antecedent awards (i.e. professional awards that precede the current threshold entry level) to upgrade their academic credential to meet current entry level requirements.

As discussed in Chapter 4, a number of practitioners in the sample population for this study hold an academic credential at a higher academic level than their professional award. It may also be the case that a number of other practitioners in the sample population are currently undertaking CPD activities that lead to a

credentialised award. This chapter focuses on these individuals and seeks to answer the following question:

How does investment in human capital development benefit the individual health care professional and the organisation?

The chapter commences with an analysis of the credentialised CPD activities carried out by the sample population from both the quantitative and qualitative strands of the study. This allows a sub-group of the sample to be drawn off which is the focus of an investigation into the practitioners' rationale for selection of these CPD activities. From this analysis the individual practitioner's perspectives regarding credentialised continuing professional development can be determined which can then be transposed onto an organisational perspective.

5.2 Experiences of Continuing Professional Development Since Registering as a Qualified Health Professional

To determine the level of current and planned CPD activity within the survey, participants were asked whether they had engaged in CPD activities leading to a formalised qualification awarded by a higher education institution since qualification and, if not, whether they had any plans to participate in such CPD activities in the next 12 months (figure 5.1).

Figure 5.1: Engagement in formal credentialised CPD activity (i) since qualification and (ii) planned in next 12 months.

Profession	(i) Have participated in CPD since qualification			(ii) Planned participation in next 12 months		
	Yes	No	Don't Know	Yes	No	Don't Know
ODP (n = 38)	36.8%	52.7%	10.5%	39.5%	42.1%	18.4%
Nurse (n = 22)	45.5%	45.5%	9%	50%	31.8%	18.2%

The conversion of raw data to percentages as shown above allows the proportion of each professional group participating in formal, credentialised CPD in this sample to be determined. The data show that a greater proportion

of the nurses in this study have participated in credentialised CPD activity since qualification and a greater proportion of the nursing cohort, as compared with ODPs, plan to participate in this type of CPD in the next 12 months. The proportion of ODPs and nurses who are unsure (Don't Know) about their involvement in credentialised CPD is similar.

The phenomenon of benchmarking was introduced in Chapter 4 to explain how registrants use academic qualifications to secure their place in the organisation's workforce structure. Therefore, those ODPs and nurses participating, and planning to participate in this type of CPD, are probably doing so to bring themselves up to the same level as the newly qualified ODPs and nurses. However, to develop the analysis further, the academic level at which these practitioners are studying needs to be identified along with the type of engagement with higher education. Engagement with study in higher education can be in the form of participation in a full pathway leading to a credentialised award, or in the form of the completion of specific modules in areas related to the immediate development needs of the practitioner. A particular module relating to the mentoring of student ODPs and nurses is a popular choice for many practitioners. Practitioners focus on this module for two reasons: first, this module is required to enable them to make practice-based assessment decisions about students; and second, it is increasingly forming part of the essential CPD activities required for progression to pay Band 6. The data relating to credentialised CPD activities are shown in: figure 5.2a, below, which demonstrates the academic level of study of those currently engaged in credentialised CPD; 5.2b showing the intended academic level of study for those planning to engage in credentialised CPD in the next 12 months; and 5.2c which shows the type of engagement with credentialised study.

The data presented in figure 5.2a demonstrates that the majority of nurses (60%) and ODPs (78.7%) in this sample that are currently engaged in credentialised CPD at degree level. As the profession moves forward and increases the academic credential required for entry to the group, some of those currently in the profession feel the need to improve their credentials in order to compete with the new breed.

Figure 5.2a: Academic level of study of nurses and ODPs currently engaged in credentialised CPD activity

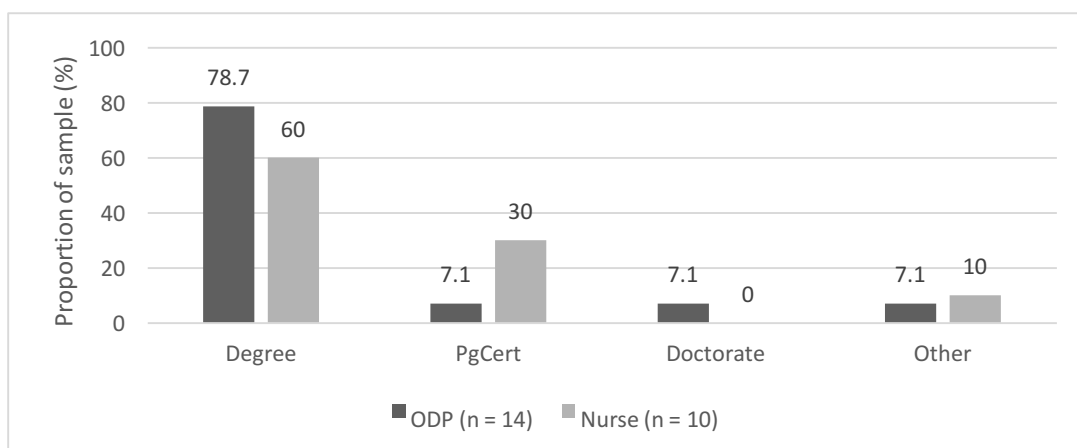


Figure 5.2b: Proposed academic level of study of nurses and ODPs planning to engage in credentialised CPD activity in the next 12 months

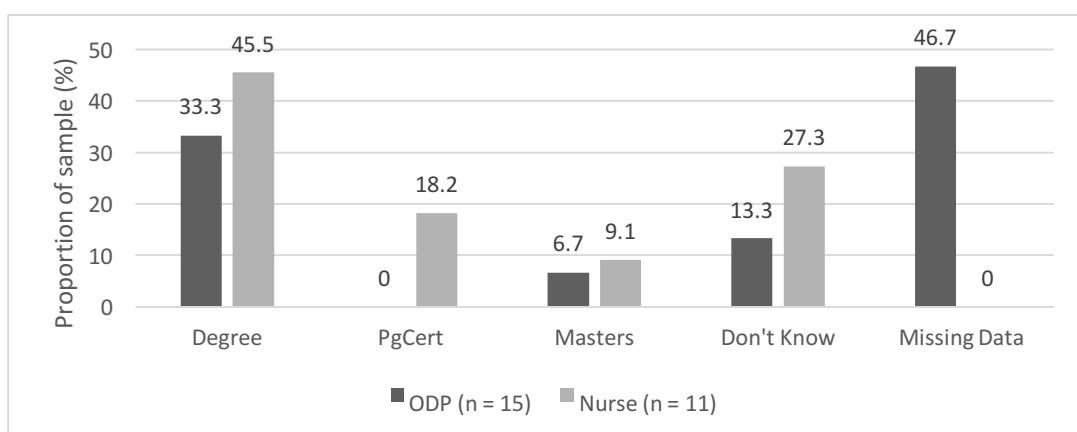
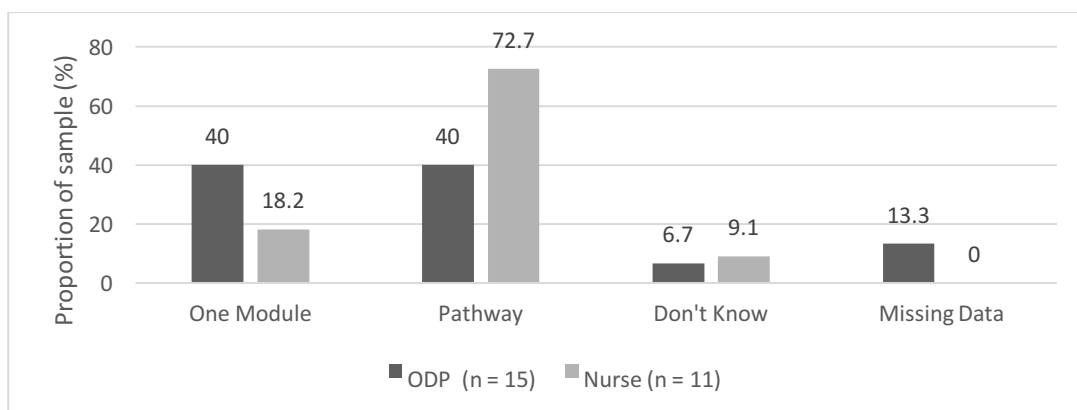


Figure 5.2c: Proposed type of engagement with higher education for those planning credentialised CPD activity within the next 12 months



Some practitioners extend their academic credentials beyond the professional entry level (figure 5.2a) by participating in Postgraduate Certificate and Master's level study. This theoretically places them in an even stronger position when competing for recognition based on academic credentials. A substantially larger proportion of the nursing cohort (30%) is engaged with post-graduate level study than their ODP (14.2%) counterparts and this may be a result of longer association of nursing with higher education. Notably one ODP (shown in figure 5a as 7.1% of the ODP sample) has taken their studies to doctorate level. The ODPs and nurses selecting the 'other' option to the survey question indicated that they were currently engaged with the mentoring module, which is at degree level.

For those planning to engage in credentialised CPD in the next 12 months (figure 5.2b), the majority of ODPs (33.3%) and nurses (45.4%) plan to study at degree level. A larger proportion of the nursing sample (27.3% - aggregated PgCert and Master's proportions) plan to extend their credentialised study to post-graduate level as compared with their ODP counterparts. However, the data for the ODP sample is reduced by the number of participants in the survey who did not respond to this question (46.7% missing data). Of those planning to engage in the next 12 months most nurses (72.7%) will enrol to a full pathway (figure 5.2c) and therefore plan to complete a whole degree or Master's award. The ODP sample are divided between enrolment for a complete pathway (40%) and enrolment to a single degree level module (40%). This again may signify a difference between the two professional groups based on their history of association with higher education. Nurses in this sample appear to be more confident in committing to a full pathway whereas a much higher proportion of the ODP sample will commit to a single module. This indicates a more cautious approach to credentialised CPD by the ODP sample created by a lack of confidence in their academic ability. However, taking this dataset overall, the indications are that there is a body of registered professionals who appear to be undertaking credentialised CPD activities which may be a direct result of the increase in academic credential required for entry to the profession.

There is also a large proportion of each professional group in this sample who is not currently engaged or does not plan to engage with credentialised CPD activity in the next 12 months (figure 5.1). The reasons for non-engagement and engagement were followed up in both the survey and at interview. The survey included an open question where participants were asked to state their reasons for non-engagement in credentialised CPD and the interview participants were asked about this directly.

5.2.1 Reasons for non-engagement with credentialised CPD activity.

Thematic analysis of the qualitative data generated by the survey shows that the reasons for non-engagement in credentialised CPD activity fall into the three main themes of time/family, not prepared to participate, and motivation (figure 5.3).

Figure 5.3: Reasons for non-engagement in credentialised CPD activity for both ODPs and nurses (n = 22)

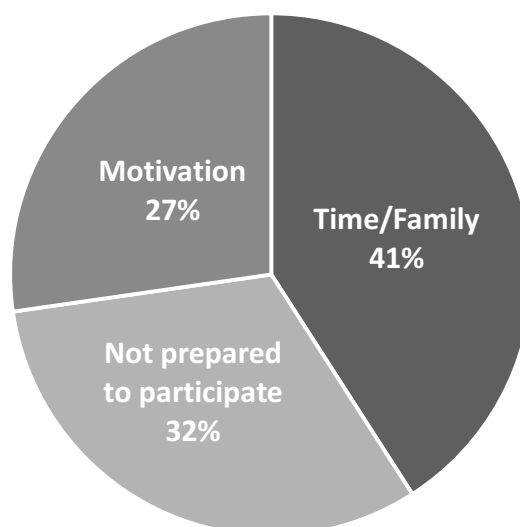


Figure 5.3 shows that the major reason for non-engagement relates to time/family commitments (41%). The free text comments in the survey were generally very brief but the following is typical: “Time to do it. Work-life balance. Funding”. This respondent very concisely identifies three key issues. Having time to complete their studies is a major issue for the respondents in this section of the survey. The operating department is staffed 24 hours a day,

seven days a week, which presents some very demanding shift patterns for the practitioners working there. The practitioners are involved in maintaining and updating their clinical skills and it is not always possible to release practitioners to attend university-based sessions. A number of practitioners also identified the importance of their family life and commitments, stressing the need to maintain a suitable work/life balance, without the external interference that academic study is perceived to bring. Funding is a concern in that, although there is opportunity to gain funding for lifelong learning activities, this is a very limited resource. Therefore, some practitioners are asked to contribute to their own development which forces them to prioritise their personal spending. The comments from Sage, a Band 5 ODP support this. Sage had recently completed the degree level mentorship modules and identified the fact that the module was funded made it attractive to them:

I mean, we've not had a decent pay rise and I'm at the top of my Band. So money isn't everything, but it's ultimately what I've come to work for. I'm not saying I wouldn't have done my mentorship if I'd got to pay for it but it's an expense I could do without at the moment.

The expense of studying at higher education level is an important factor that required careful consideration by Sage. The fact that they secured funding took that factor out of the equation for Sage. However, issues relating to the funding of CPD courses are about to rear their head as a result of the government's Comprehensive Spending Review. Funds for lifelong learning are currently made available to trusts via Health Education England and their regional departments. Every year trusts bid for funds which are then allocated to individual students. From 1st April 2017, this process will change and there is considerable doubt over whether the funding for lifelong learning will continue. This places the burden of funding such professional developments directly on to the student who, as Sage demonstrates will consider their options very carefully.

Those not prepared to participate in credentialised CPD (32%) did not offer an outright rejection, but were happy with their current level of qualification and felt that their current CPD activities were sufficient to maintain their standards of practice and therefore their registration, as the comment below demonstrates:

Achieved extended roles within my current role and I am happy with my level of learning. I have achieved high levels of qualifications during my earlier career which allows me to support and assess junior members of staff. I also continue to keep myself updated within these roles.

(Band 6 ODP survey participant)

Some of the survey participants had recently qualified as a nurse or ODP and were still in the transition period from supervised student to autonomous registered practitioner:

As a newly qualified practitioner with an expanded role I feel that I am still developing anyway and would not want to take on an additional course at this time.

(Band 5 ODP survey participant)

Practitioners identifying these two themes therefore find that, at present, participation in credentialised CPD is not the most suitable way of demonstrating and maintaining their fitness to practise. Newly qualified practitioners are also at such a point in their career that they want to focus on consolidating their skills and organisational knowledge before committing to an additional period of academic study.

The final theme relates to the individual's motivation to participate in CPD and presents some dissenting voices. Some of the participants stated that they were so close to retirement that they did not see the benefit in studying for a credentialised award. Others do not see the value of improving their academic credential as there is no opportunity to progress their career:

I do not see any future in career improvement. A few of my colleagues have already completed a degree course but are still working as a Band 5. Why bother? No promotion.

(Band 5 ODP survey participant)

For this practitioner the value of improving one's academic credential lies in the opportunity for promotion. However, their experience is that this does not happen and it appears that their colleagues are improving their credential just to stand still at the entry level Band 5 salary. As a result of the external organisational influences, this individual's intrinsic motivation has been undermined (Tranquillo and Stecker, 2016) and they make an active choice of non-participation in credentialised CPD activities.

This phenomenon was alluded to by Dill, one of the Band 6 ODP interviewees, while reflecting on the impact of graduate entry. The interview moved to the perception of graduates by registrants with antecedent awards in that, as graduates, the expectations of these practitioners will be much greater, and those non-graduate registrants will be less inclined to support the graduate's development and transition into their qualified post. Dill was asked if this situation could be switched so that the graduates would expect the non-graduates to increase their academic credential:

Well, funny you should say that. Yeah. They might look down on the 752s [antecedent City & Guilds ODP preparation] and the NVQ [also an antecedent ODP award] and think 'well, you know, I've got a degree, what have you got? What have you done to justify over the last 10 or 15 years? Why haven't you moved forward? Why haven't you done some professional education or some lifelong learning or moved down that route?' You know, a degree at the end of the day is held out as the gold standard or pinnacle of academic achievement.

(Dill, Band 6 ODP)

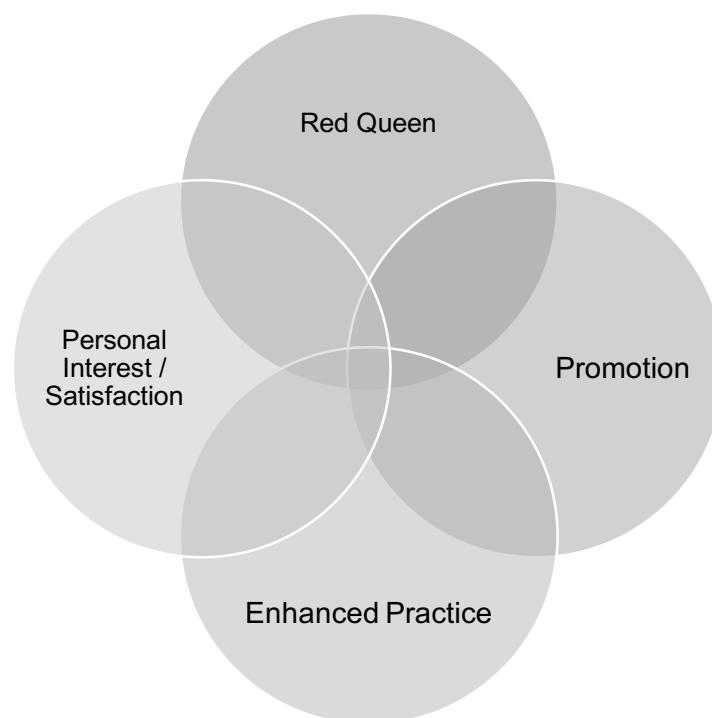
This hints at a potentially fractious relationship between graduate and non-graduate professional entrants during this phase of professionalisation. The new breed graduate registrants have an element of formal academic training which may be used to move the profession forward. However, they are faced with a body of registrants whose reticence to participate in higher education creates frustration as the profession continues its quest for academic legitimacy (Thompson, 2009). The scenario that Dill paints suggests that, in the eyes of the graduate entrants, those with antecedent awards who have not increased their academic credentials are lazy. There is potential for this to impact on the credibility and social standing of the non-graduates and, more importantly, serves to impede the progression of the profession as an academic discipline.

Set against this, figure 5.2 clearly demonstrates that there is a body of ODPs and nurses who have, or are planning to engage in credentialised CPD activities. Attention now turns to this subgroup of the research sample.

5.2.2 Professionals' engagement with credentialised CPD activities

The qualitative data gathered in interviews complemented and added detail to the qualitative data from the survey. From this data four themes emerged to provide some explanation to why ODPs and nurses engage with credentialised CPD activities (figure 5.4). Although the data have been used to construct separate themes, it becomes apparent in the analysis that there is an overlap between the themes.

Figure 5.4: Emergent themes for engagement with credentialised CPD activities



5.2.2.1 Red Queen

The red queen hypothesis is introduced in the literature review to illustrate how professional groups act like corporate organisations in their development. An advancement in one professional group results in other similar groups pursuing the same development. This results in a coevolution of the professions which is the basis of van Valen's red queen hypothesis (Easton, 2007). The current study takes the red queen concept a stage further and applies this to individual professional development which is linked to the benchmarking phenomenon

introduced in Chapter 4. Here individuals benchmark themselves against the newly qualified professionals entering their department, or against the ever developing job specification for their current role. They then plan their CPD activities to improve their academic credential in order to remain competitive.

In Chapter 4, Oregano, a Band 6 diplomate nurse was introduced. Oregano completed a degree post-qualification as the professional entry level for nursing had increased to degree level soon after their qualification. The degree level study allowed Oregano to remain competitive with the new breed of registrants and was felt to be a significant factor in their promotion to Band 6. The interview explored Oregano's plans for further academic study:

I've just done another diploma. I've got an advanced diploma in anaesthetics now. I did that because I've changed my role from recovery now. So I'd got to where I'd got in recovery and I've changed my role again to Practice Development Team. So my competition now is two ODPs and me within the same team. So again I've found myself in a position where my peers were more qualified in certain aspects of the role we now do than I was myself. So I needed to do something to up my knowledge and my skills to make myself level to where they are. So I've just done the anaesthetic diploma.

Oregano went on to say:

If somebody is coming through with more knowledge and skills than I've got, I'd . . . it's all competition isn't it? And in the role that I've got now I'm supposed to be supporting people, so if I'm not as qualified as somebody that's coming through from the bottom then where do I stand in supporting them?

And:

I think competition is healthy. You've got to strive to gain new knowledge. You learn from each other all of the time. So if somebody is learning something new then we should be sharing it and we should be accessing the new things to make the best practice that we can deliver.

Oregano is clearly competitive and scans their environment to see where they sit in terms of their experiences and academic credential. The environmental scanning continues as Oregano enters their new role where, immediately, new competition is identified. In the extracts from the interview cited above, it is clear that Oregano's benchmarking activities are aimed at keeping up with their

competitors, which can be likened to the metaphor of *running to stand still*. Easton (2007) describes how van Valen used the metaphor of the Red Queen from *Alice Through the Looking Glass* as an evolutionary theoretical concept. Failure of the species to catch up with the new breed results in maladaptation which ultimately leads to extinction. Although, there appears to be no benefit in the completion of the anaesthetic diploma other than the intrinsic satisfaction of the achievement, Oregano is avoiding maladaptation through their ability to remain responsive to the changing educational requirements for health care professionals.

Oregano is not alone in this. Garlic, a newly promoted Band 6 diplomate nurse presents a similar picture:

I only got my Band 6 in March and obviously, when you apply, they're looking for people who have got degrees or have done mentorships or things like that. And since qualifying I haven't really had the opportunity to go and do any further study, but over the last few months I've thought 'I think I really . . . now I've gone up a Band I really need to pull my finger out and start'. And I think they [Garlic's employers] have sort of . . . they are progressing now in terms of pushing you to do more study.

Garlic's progression to a higher pay Band has served as an external motivator to participate in credentialised CPD activities. The realisation that this is increasingly becoming a requirement for promotion reflects Gagne and Deci's (2005) self-determination theory. Garlic has demonstrated a form of identified internalisation where they have identified with the values of this externally imposed requirement as fitting in with their personal goals. However, as with Oregano, Garlic's academic development will only take them to the point at which the new breed registrants are entering the profession.

Theoretically, as a result of individuals improving their academic credential, the organisation should become more productive as a result of increased stocks of human capital (Becker, 1993). However, the paradigm-shift to credentialised professional entry appears to have created a disconnectedness in the current workforce where the new graduate practitioners are no more productive than those with antecedent awards. Some of the practitioners holding antecedent awards feel that they have to increase their stock of human capital to remain

competitive, but others are happy to remain with their lower academic profile. This appears to be creating a position of stasis, where the professions are redefining their role and entry to it based on the rhetoric surrounding the academicisation of the preparation for professional practice.

What ultimately appears to be happening at present is the development of an academic hierarchy where those at the top, holding higher academic credentials are in a very good position to improve their career prospects. They are also better placed to make use of any available funding on offer for professional development to further increase their academic credential (e.g. from Bachelor degree to Master's) as they have the academic confidence and competence to do so. Those at the lower end of the hierarchy, holding the antecedent awards are theoretically always playing catch up; first to get to the professional entry level academic credential of the new breed, and then to pursue them through the postgraduate framework.

The consequences of falling behind in terms of academic credential were made very clear by Fennel, a Band 6 ODP:

. . . when we went through the Agenda for Change there were people who were very, very experienced, who were actually made redundant. And people with a degree were kept on. So that's my perception now. I think it's a bit dangerous. If they ever have another cull of staff, you've got to be up there with the rest of them.

Fennel is alluding to the process of maladaptation which is a consequence of failure to evolve (Easton, 2007). Agenda for Change was a process of regarding and redefining job description in the NHS based on a common Knowledge and Skills Framework (Department of Health, 2004). It is Fennel's perception that this led to the culling of staff that did not hold the necessary level of academic credential. Based on this, Fennel is predicting a precarious future for those ODPs and nurses who do not engage in credentialised CPD activity.

5.2.2.2 Promotion

The second theme identified is promotion where the motivation for participation in credentialised CPD is to progress the individual's career prospects. The

impact of academic qualifications on promotion prospects was explored in Chapter 4, and there is some overlap here. However, the primary focus of this section of analysis is on the individual's choice to participate in credentialised CPD activities. The feature that distinguishes this theme from the red queen theme is that the participants who use their credential for promotion are doing so to meet a specific need of the next grade. These participants are not overly concerned with the new breed of graduate entrants to the profession and would be happy that the level of their professional award coupled with their clinical experience makes them competitive in their clinical role. However, as senior posts are becoming academicised, these individuals recognise the need to improve their academic credential if they are to progress in the organisation.

This category is more associated with the ODP interviewees as the academic credential cited in job descriptions and person specifications for roles at Bands 6 and 7 is at academic level six (degree level). The following is typical of the interviewees in this category. Sage, the Band 5 ODP interviewee, was asked about their participation in formal academic study since qualification. They confirmed that they had completed a degree level module in mentorship. The discussion moved to their motivation for completing this module:

It was the next step really. It was something that was brought up in my PDP, looking towards gaining a Band 6 role, and in preparation for applying for a step up. We discussed the options of doing a management course, my mentorship . . . obviously when I did my mentorship there wasn't many mentors in [names theatre area]. And it was something that was being funded, you know, which I didn't have to do extra days . . . well I did half of the course in my own time and half in work's time, which is fair enough.

It appears that the motivation for improving their academic credential came from the personal development plan (PDP) which is a product of their annual performance appraisal process. It is apparent that Band 6 positions ask for applicants who have completed some additional credentialised study and for Sage, the mentorship module was a natural credentialised module to complete to place them in a position to secure a Band 6 position. The selection of this module also served as a taster of degree level study.

Pursuing promotion was also part of the reason for Bay, a Band 6 ODP who also completed a mentorship module at degree level:

Because I'd been qualified for two years, I wanted to progress but I wanted something to support me in practice so I knew I'd got something there to show me how to support another student.

The initial part of Bay's response is related to their career progression, but there is also a secondary aspect of supporting their professional practice. Both Sage and Bay go on to reflect on how completion of their mentorship module has enhanced their mentoring practices (see section 5.2.2.3). However, another phenomenon arises here; the individual's motivation for completing the mentorship award.

As demonstrated by both of these practitioners, completing the degree level mentorship module was instrumental in their plans to progress from Band 5 to Band 6. Completion of the mentorship module is also an essential credential for those wishing to support student ODPs and nurses in the operating department. This takes on even more significance when 50% of the nursing qualification (Nursing and Midwifery Council, 2010b) and a minimum of 60% of the ODP professional qualification (College of Operating Department Practitioners, 2011a) are based in clinical practice. As such ODPs and nurses holding the mentorship module are directly responsible for making judgements about the clinical competence of students under their tutelage. If the degree level mentor module is used solely as a means for progression, there could be related issues surrounding student support and development. A situation could possibly arise where a Band 5 practitioner completes the mentor module as a means to an end (i.e. their promotion to Band 6), having no interest in supporting student development. This could lead to an abundance of practitioners within an organisation holding the mentorship credential, but a relative shortage of mentors who will actively support students. This would have a direct impact on the quality of clinical placements for students. Here the credential takes precedence over the underlying purpose of the professional development.

5.2.2.3 *Enhanced Practice*

The third emergent theme is that practitioners engage in credentialised CPD as a means of enhancing their practice. As seen on page 149, one of the reasons that a survey participant gave for non-engagement in credentialised CPD is that they have 'achieved extended roles'. Some of these extended roles lead to credentialised modules (e.g. the Surgical First Assistant role) as the study is awarded academic credits, and this can therefore be utilised as part of a degree pathway should the individual wish to pursue this. Within this theme, practitioners engage with credentialised and other forms of CPD that have a direct impact on their clinical activities and cite the reason for engagement as professional interest or to better their performance in an aspect of their clinical practice:

I mean, I think we all need to do bits because you need to keep your mind active and that's the best way to do it. So you know, I wouldn't necessarily go for the full degree, but I might go for a part of that because you can do the modules can't you? I might go for a couple of modules to keep myself going without going for the full degree because I feel that that's helpful . . . It would be health care related. It would probably be something to do with children, or something. Obviously we do paediatrics here. It would be something along those lines.

(Tarragon, Band 7 Nurse)

An ODP did not believe that additional academic qualifications made practitioners employable at higher grades, but had some impact on the ability to perform their role:

No, I don't think they do [make you more employable]. I think they make you a better practitioner. I know from the mentorship, I . . . from my point of view, made me really think about how to treat a student. What stresses . . . I still remember being a student and I remember the hardships I had with personal confidence, but doing the mentorship and the essay it did made me think more about the actual environment and how you can make or break a good experience. And I think doing the mentorship has made me a better practitioner, and it's made me a better mentor. . . The research I did really made me think. If you come in in a bad mood, you know, it's going to transmit on to your student and it affects people more than you think.

(Sage, Band 5 ODP)

In these interview extracts, Tarragon is contemplating their participation in credentialised CPD activities and Sage has completed the degree level mentor module. The motivation for Tarragon is to keep their mind active but with a focus on health care related activities which will enhance their performance in their current role. The mention of paediatrics demonstrates this as this is a highly specialised area of patient care that is carried out in specialist units with dedicated paediatric staff. Sage has clearly benefited from their engagement with the degree level mentor module. It appears that their choice of module was partly based on their experiences of the mentoring process from a student's perspective and they are combining this experience with their new learning to enhance their mentoring practice.

In addition to this enhancement of practice, these practitioners are also fulfilling an organisational need. In the case of the Tarragon, paediatric surgery is a specialist area of service delivered by their organisation. The organisation therefore requires a number of suitably qualified staff to perform in this role. Likewise, the organisation requires a body of mentors to supervise and support students from whom the local workforce is derived on their qualification as nurses or ODPs. Therefore, having a team of mentors who can make the students' experience one of good quality (as alluded to by Sage) also promotes the department as a suitable place in which to base their future career. Not only this but both practitioners will widen their network of contacts as a result of their development, and their stock of organisational capital will increase which could be influential in their future career development (see Field, 2008).

5.2.2.4 Personal interest/satisfaction

The final theme to emerge is personal satisfaction. Here the individual engages with credentialised CPD to satisfy their intrinsic motivation. Any link between their credentialised CPD activity and their work role is coincidental and in this first example, the individual eschews professional development in their clinical role and would rather develop in an area that meets their outside interests:

I haven't got a degree. I am far too busy doing in excess of my contract hours to be able to do one. Not just about the degree, but if I wasn't

doing a reasonably good job or if I wasn't at least competent in my job then my secondment wouldn't have been extended by 12 months . . . and, I don't know if it makes me a better person, I don't know if I'm just . . . it's just not for me, and in all honesty, if I was to go out and get another qualification, I'm at the stage where I think I'd rather do it in something like wildlife or land management or something like that just to shore up what I do as a hobby.

(Chive, Band 8a Nurse)

Chive is very clear about their non-participation in credentialised CPD due to the time constraints placed on them by their current role. They also feel vindicated in their decision by the fact that their secondment in their current position has been extended. They are very clear that they would not participate in any credentialised development unless it meets their personal interest needs which lie away from health care. This raises an interesting point about credentialised awards. Graduate characteristics were developed in the form of the Dublin first cycle descriptors (Sirca *et al.*, 2006) which are now integrated into the Framework of Higher Education Qualifications (QAA, 2014) as the benchmark by which all degree level awards are measured. This being the case the rationale for completing credentialised CPD in an organisational context has to be questioned. Is participation required for developing one's clinical body of knowledge, in the case of health care, or is development of the graduate characteristics the desirable outcome? If the answer to this question lies with the desirability of the graduate characteristics, then credentialised CPD could justifiably be in the form of an area of personal interest that lies outside of the practitioner's professional role. The practitioner will develop the desirable characteristics as a result of their engagement with a degree or other academic level programme and these would be transferred into their professional role. The practitioner remains obliged to undertake other forms of CPD to ensure their currency in clinical practice is in accordance with their regulatory body requirements.

This returns the analysis to the notions of graduateness and employability and whether these exist as separate or combined entities (see Robinson & Garton; 2008; Steur, Jansen & Hofman, 2011). Brooks and Everett (2009) suggest that graduates entering the workforce need to consolidate and develop employment

skills within an organisational setting as part of their transition into the workforce. However, the opposite appears to be the case in health care. Here practitioners develop the necessary employment skills and some organisational knowledge through their pre-registration preparation, but are increasingly required to develop graduate skills, such as critical analysis, problem-solving and reflection, to maintain their position in the workforce.

Personal interest was also cited as the main reason for participation in credentialised CPD for Dill (Band 6 ODP). In this extract from their interview they reflect on the pathway taken from qualifying as an ODP:

What did I do first? I actually did an A level in biology. That's where I first started because I'd got an interest in anatomy & physiology. Doing the job I was doing, it opened my mind to other things. The 752 [City & Guilds 752, an antecedent ODP professional qualification] gave me a baseline understanding and I wanted to develop more. I wanted to move on to, to do a science degree because it interested me. And I did it more for me but there was lots of overlap with the job that I did. So they sort of ran side by side. So I haven't gone down the conventional lifelong learning route attached to my own professional qualification. . . [It's] more personal but a lot of it does fit in with where, actually where I've ended up now. More by luck than judgement, I think. But I think I would have gone down a similar route even if I was still doing what I was doing in clinical practice. Because I enjoyed it and I did it for me.

Dill is now part of a Practice Development Team within their department and suggests that the overlap between their credentialised CPD activities and their current position is coincidental. The main thrust for their pathway of academic development lies in a personal interest stimulated by their job which was developed during their professional preparation. This narrative resonates with Beckerian human capital theory (Becker, 1993) in that the practitioner has improved their stock of human capital via engagement with credentialised awards, which have enhanced their clinical practice, and subsequently contributed to their career development and progression. However, the commonality with Becker's theory ends here as the mechanism by which stocks of human capital were developed were chosen by the individual and not the organisation.

Although examples of the four reasons for participation in continuing professional development are provided as separate themes, the links between them are evident and have been highlighted in the extract above from the interview with Dill. Whichever the dominant reason for engagement, there is a knock on effect on personal satisfaction, promotion prospects and enhancement of clinical practice. There is also further evidence in this section of analysis of the red queen hypothesis operating at an individual level. Having established why practitioners do or do not engage with credentialised CPD, the analysis progresses to look in greater depth at what influences the choice of CPD activities.

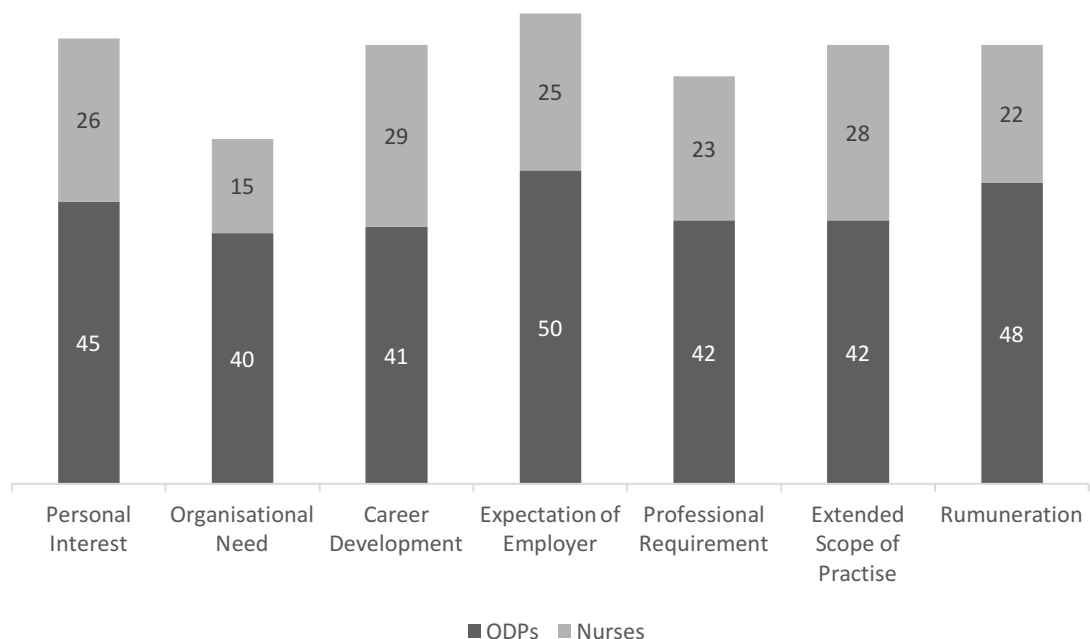
5.3 Choice of Continuing Professional Development Activities

Participants in the survey were asked to rank the importance of seven factors that could influence their choice of credentialised CPD activity. This was a filter question in the survey and was therefore only answered by those who had participated in credentialised CPD activities since professional qualification and those who planned to participate in the next 12 months. However, a number of this sub-sample either did not answer this question or did not provide a full ranking. Non-completers excluded themselves from this section of analysis and respondents only partially completing the ranking question were not included in the analysis, leaving a total of 17 respondents (11 ODPs and six nurses).

The factors were ranked by a numerical scale where a ranking of seven represented the most important factor through to a ranking of one for the least important. To present a visual representation of the findings the number of responses for each numerical score for each factor were recorded. For each factor the ranking scores awarded were multiplied by the number of respondents giving that score and the results were added together to provide an overall rating for each factor. The results are then presented for each professional group (figure 5.5). For example, the overall score for nurses for the organisational need factor is 15. Within this category two nurses ranked this

factor as 6 ($2 \times 6 = 12$) and one nurse ranked it as 3 ($1 \times 3 = 3$). Adding these ranking scores together provides an overall score of 15 for nurses for this factor.

Figure 5.5: Influences on the choice of credentialised CPD activity for ODPs (n = 11) and nurses (n = 6)



For both nurses and ODPs in this sample, organisational need is the least important factor in their selection of credentialised CPD activity. For ODPs the most important factor is employer expectation and for nurses the most important is career development. Employer expectation is a reflection on the academic requirements which are increasingly forming a part of the job descriptions for roles at Bands 6, 7 and 8. As the analysis to date has demonstrated, this academicisation appears to be driving some professionals to participate in credentialised study to remain competitive for promotion. This is also reflected in the nurses rating career development as the most important factor for engaging in credentialised CPD activity.

The striking finding from this study is that there is no specifically dominant or weak factor noted by these respondents. This may be due to difficulties experienced by the respondents in discriminating between the factors or it may just be that there is a range of different factors that work together to influence a practitioner's decision to engage in credentialised CPD. The finding may also be

affected by the small number of respondents completing this section of the survey.

One aspect of these results needs to be developed further. According to Becker (1993), increased stocks of human capital have a strong positive correlation with increased earnings. The combined sub-sample of nurses and ODPs gave remuneration a score of 70, ranking this joint third behind employer expectation and personal interest. Looking at the individual professional rankings, ODPs place greater importance on remuneration, ranking it second, whereas nurses see this as a less important factor ranking it sixth. So what is the nature of the relationship between remuneration and engagement in credentialised CPD activity in the operating department for professionals in the operating department?

5.3.1 Remuneration and credentialised CPD engagement

To be ranked as the joint third most important factor in the combined scores, and second in the ODP sample as a factor influencing engagement with credentialised CPD, suggests that the prospect of earning more money is in the minds of practitioners. Linking this to the highest ranking factor of employer expectation further suggests that practitioners place themselves in a position where their increased productivity in an area of need is more likely to be rewarded financially through promotion to a higher pay Band. Three Likert-style items were included in the survey linking credentialised CPD to pay, employers' views of graduates and promotion prospects (figure 5.6).

Figure 5.6: ODP and nurse responses relating to credentialised CPD and remuneration

a. I will earn more money if I complete a degree

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
ODP (n = 38)	5.3%	10.5%	34.2%	28.9%	21.1%
Nurse (n = 22)	13.6%	13.6%	22.8%	31.8%	18.2%

- b. Employers look at applicants' academic qualifications so completing a degree will be advantageous if I apply for another job in health care

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	15.8%	57.9%	15.8%	7.9%	-	2.6%
Nurse (n = 22)	31.8%	50.0%	9.2%	4.5%	4.5%	-

- c. I need a degree to improve my chances of promotion

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	15.8%	47.4%	23.7%	10.5%	-	2.6%
Nurse (n = 22)	27.2%	31.8%	31.8%	9.2%	-	-

Figure 5.6a suggests that ODPs are ambivalent about the relationship between possession of a credentialised award and increased salary as the modal average falls within neither agree nor disagree. However, the greatest combined proportion of ODPs (50%) falls within disagree/strongly disagree. The modal average for nurses falls within disagree and again there is a high proportion (50%) within disagree/strongly disagree. This supports the nurse sample's low ranking of remuneration, but is contradictory to the ODPs ranking as the second most important factor. This finding may be explained by the greater number of ODPs completing the Likert-style items than the ranking question.

In common with the findings of Robinson *et al.* (2003), it appears that ODPs and nurses feel that the credential on its own is not enough to secure a higher salary through promotion and that other characteristics have to be demonstrated in order to progress in the organisation. Both professional groups agree that possession of a degree will make them more attractive to potential employers and place them in an improved position in the promotion stakes. Figure 5.6b shows the modal average for both professional groups is 'agree' when asked about the advantageous position of graduates in securing employment. This

result was replicated for ODPs when asked about promotion (figure 5.6c). The data for the nursing sample shows an equal number of responses in the agree and neither agree nor disagree categories. However, the cumulative proportion of nurses in strongly agree/agree (59%) indicates overall agreement that degrees are an important factor in securing promotion.

When the most senior of the interviewees were asked about the influence of academic qualifications in securing promotion and, as a result of this, command of a higher salary, their responses reflected the findings of Mok, Wen and Dale (2016):

[Graduates] have a distinct advantage. Especially when it gets to the stage later on. Not necessarily Band 5 to Band 6, but when you're looking at Band 6 to Band 7, and Band 7 to Band 8, it's when you actually see degree going from desirable to essential . . . at the end of the day those with a degree have a distinct advantage because if there's a glut of applications, and there's 15 or 20 applications, to whittle those down you're looking at the job spec; does this person conform to the job spec.? One of the first things is level of education. Level of experience first, applicable experience next, then you're looking at education, level of validation regarding what continuing education they've done in post. And I don't mean degrees, Masters, etc. I mean mandatory training and supplementary training in post.

(Chive, Band 8a Nurse)

This is supported by Parsley, the Band 8b ODP:

People just look at the piece of paper and . . . I think that when I shortlist people, I look at their experience as well as what they've got on a piece of paper. So I think if I look at that then other people must look at the same. So that's how I judge it. But if that's what I'm looking for when I recruit people, then people must do the same.

Both of these interviewees hold senior management positions within the operating department structure, and have a responsibility for the recruitment and deployment of staff within their respective departments. Chive is clear that job specifications are increasingly asking for credentialised awards, especially for the more senior posts (Bands 7 and 8). However, when faced with a large number of applicants it appears that there is a ranked order which helps Chive make their decision. By looking at an individual's experience, followed by their

applicable experience and then their academic profile allows decisions to be made in relation to shortlisting for interviews. This strongly resonates with the findings of Mok, Wen and Dale (2016), who argue that employers are increasingly focusing their recruitment activities around the possession of work skills. Their contention that academic credentials are increasingly relegated to a lower rank in occupational screening is supported by Chive who ranks the academic profile of the applicant third in their order. This is supported by the brief section of the interview with Parsley who also considers an applicant's experience with their academic profile. What appears to be happening here is that academic credentials are reduced to the fact that the individual has undertaken and completed a range of academic assessments as identified by Killeen *et al.* (1999).

In terms of the rhetoric surrounding earning capacity linked to academic credential (Department for Business, Innovation and Skills, 2016), the current study shows that the credential is not the sole determinant of earning capacity. Like Brooks and Everett's (2009) research, the current study indicates that gaining relevant organisational experience and developing wider organisational networks (Tomlinson, 2008) are also important factors. However, one cannot escape the importance the participants in this study place on academic credentials in placing them in a position of advantage when it comes to their career transitions.

5.4 Conclusion

The focus of the analysis in this chapter is on credentialised CPD activities but it must be acknowledged that all participants in this study demonstrate their continued fitness to practise and maintain their registered status through a wide range of CPD activities. Individual's benefit from investing in their human capital by remaining competitive in terms of promotion and career progression, enhancing their practice, and maintaining their motivation by pursuing areas of interest. There is evidence of the red queen hypothesis operating at an individual level where individuals are completing credentialised CPD to bring them up to the level of the new breed of professional entrants. Individuals do

this by either prospective or retrospective benchmarking against either professional entry criteria or the credentialised requirements for their role. However, issues arise when individuals utilise academic study as a means to promotion, especially when that study is linked to departmental activities such as supporting students. Alternatively, qualified practitioners could be encouraged to complete academic study in an areas related to their personal interests where the academic characteristics developed can be transferred directly to the individual's work role.

The benefits of participating in formal, credentialised CPD activities to the organisation are unclear. As a bureaucratic organisation, the NHS appears to be using academic credentials as a means of screening individuals for employment and promotion, but the impact on productivity, in this case service delivery in the operating department, is unclear and cannot be demonstrated in this study as originally intended. Further investigation is required in this area.

Chapter 6: Findings and Analysis 3: Higher Level Qualifications and Working Practices in the Operating Department

6.1 Introduction

The final chapter of data analysis relates to the impact of academicisation of Nursing and Operating Department Practice on these professions, looking specifically at the initial professional training of both professional groups. The academic credential associated with entry to the professions is either under review or has moved to degree level and the impact of the move to graduate entry on the professions is the focus of the investigation in this chapter. The first part of the chapter will examine the preparation of professionals for their role in the operating department on completion of their respective pathways of initial training. Although some of the research sample hold antecedent awards (i.e. forerunners of the current professional entry requirement), reflection on their professional preparation may help to establish the major differences between their and the current-day preparation for clinical practice. The chapter will then move on to consider the potential impact of graduate entry on the professions. Here the benefits for clinical practice will be explored alongside the unintended consequences for each professional group as perceived and experienced by individual practitioners. Analysis of these areas associated with academicisation of the health professions will address the final primary research question:

How does attainment of higher level qualifications influence the working practices of health care professionals in the operating department?

6.2 Professionals' Preparation for their Role in the Operating Department on Completion of their Pre-registration Programme of Study

Survey participants and interviewees were asked how well prepared they were for employment in the operating department on completion of their specific preparation for professional practice. The survey also generated qualitative data by asking participants to identify the features of effective or poor preparation. As noted in Chapter 4, survey participants had completed a range of awards which included those accredited by City & Guilds for ODPs and the Registered General Nurse Certificate for nurses. The purpose of generating such data is to develop a picture of the various approaches to professional preparation and to present a direct comparison between antecedent and current approaches. Those occupying senior grades (pay Bands 6 – 8) were also asked their views on the effectiveness of the current preparation of ODPs and nurses as this part of the sample population play some part in recruitment of newly qualified practitioners.

Chapter 1 discusses the development of the ODP profession as a result of a shortage of nurses working in the operating department in the 1960s. The historical review demonstrates that there is some overlap between the nursing and ODP professional body of knowledge and, as the current study shows, nurses still form a major part of the operating department workforce. However, as earlier analysis demonstrates, the pathways for professional preparation of these professional groups has become increasingly specialised to the extent that ODPs and nurses are prepared through separate programmes of study. The first part of this analysis therefore illustrates how effective practitioners feel their professional training was in preparing them for their role in the operating department (figures 6.1a and b).

Figure 6.1a: Effectiveness of own pre-registration preparation for ODPs (n = 38) and nurses (n = 22)

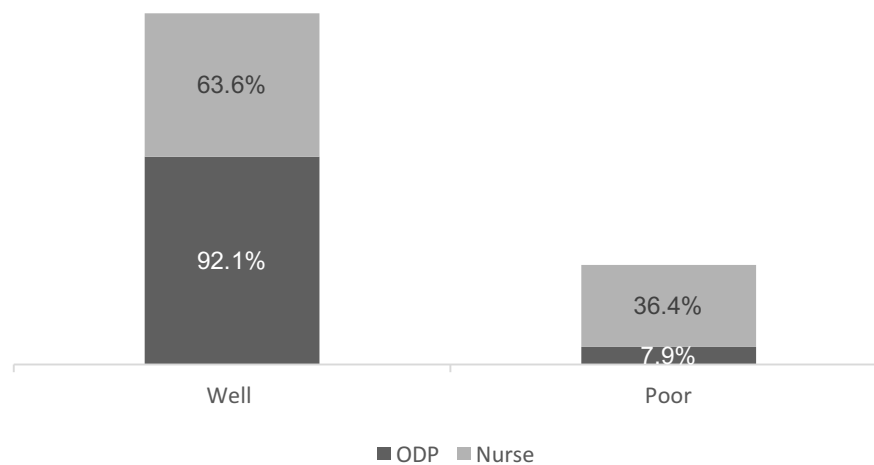


Figure 6.1b: Effectiveness of pre-registration preparation: perspectives of Band 6 – 8 practitioners (n = 24)

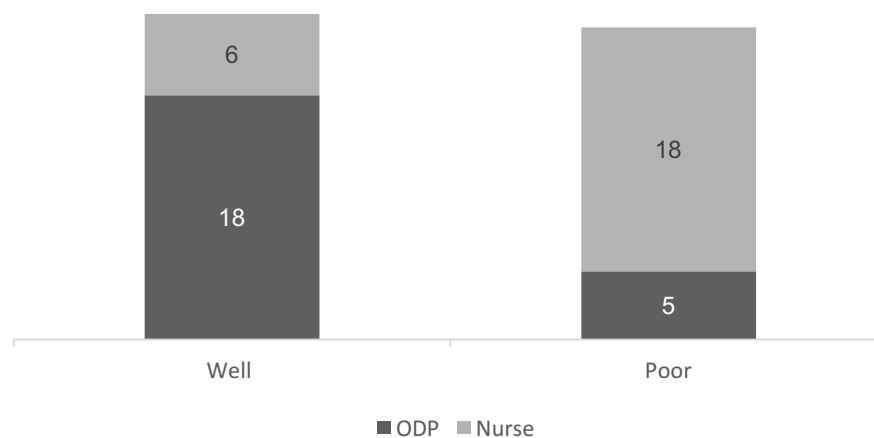


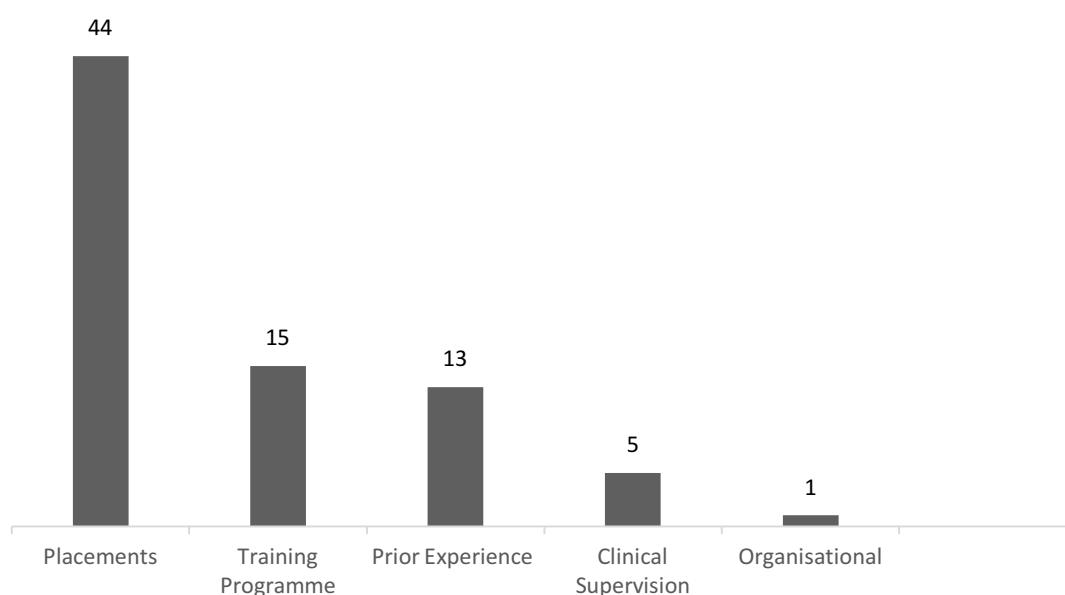
Figure 6.1a indicates that the majority of ODPs (92.1%) and nurses (63.6%) feel that they were well prepared for their clinical role in the operating department on completion of their pre-registration preparation. However, over four times as many nurses (36.4%) than ODPs (7.9%) felt poorly prepared for their role. Figure 6.1b shows that it is the perception of the Band 6–8 practitioners that ODPs are better prepared for their role in the operating department than nurses. It must be noted that the questions were not answered completely by all Band 6–8 respondents; some entered partial data relating to only one profession. This has been included in the analysis as it shows that the respondent has formed

an opinion about that professional group's preparation for practice. The other area to note is the discrepancy in total numbers between well and poorly prepared categories (figure 6.1b) which is again as a result of the partial entry of data in the survey. The dichotomous data presented in figure 6.1a and b was followed up by open questions which asked participants to provide some justification for their views.

6.2.1 The features of effective and ineffective professional preparation

In the survey, 57 (N = 60) practitioners provided comments about the effectiveness of their pre-registration training as preparation for their role in the operating department. Five distinct themes emerged from this data which are demonstrated in figure 6.2.

Figure 6.2: Emergent themes identifying factors of effective and poor preparation for the clinical role in the operating department (n = 57)



These data are an accumulation of reflection on the practitioner's own professional training and Band 6–8 comments on their perceptions of the current training for ODPs and nurses staffing the operating department. The themes emerged from the primary focus of discussion as some participants

identified other themes as a secondary factor. A frequency count of the primary themes provides an indication of the importance of that theme to the sample.

6.2.1.1. Placements

Placements proved to be the dominant theme. This theme relates to the clinical experiences received by the student during their professional preparation and the dominance of this factor in the data possibly relates to the fact that 50% of pre-registration nurse training (Nursing and Midwifery Council, 2010b) and a minimum of 60% of ODP pre-registration training (College of Operating Department Practitioners, 2011a) is centred on clinical placements. With such a focus on gaining clinical experience one would expect both professional groups to be fully prepared for their role in the operating department and this was borne out initially in the survey data with comments such as “The placements were the most important aspect of the course to prepare us for the role” (Band 5 ODP survey respondent), and:

Long term placements in operating and associated areas with a considerable amount of practical experience whilst being supervised by qualified staff. A lot of “hands on”. Able to consolidate theoretical course work on site and able to gain confidence with much patient contact.

(Band 6 ODP survey respondent)

For these practitioners, access to hands on experience in the hospital environment is the key to developing clinical competence and confidence in caring for patients. This aspect of health professions’ education was highlighted by the Blair government (Department of Health, 2000) as essential, but lacking due to the over academicisation of professional preparation.

However, when analysing the comments from the Band 6 – 8 practitioners, it becomes clear that practitioners require a specific type of experience for operating department work. Figure 6.1b shows that this sub-group of participants within the survey sample claimed that nurses were poorly prepared for their role in the department, as:

Nurses have so many areas of competency to complete that when they arrive on their first week in theatre they are under-skilled compared to newly-qualified ODPs.

(Band 6 ODP survey respondent)

And:

Because theatre is such a specialised area I think nurses are too used to ward area work. Perhaps more time should be spent in theatres as even a simple thing like working more closely with different levels of doctors/Consultants is so different.

(Band 6 Nurse survey respondent)

These comments support the contention of Bisholt (2012) who argues that the nature of pre-registration nurse education limits the development of clinically relevant skills and the development of a body of professional knowledge required for effective clinical practice. There also emerges one significant difference between student ODP and student nurse clinical experiences. Nurses have to complete a number of pre-determined placements as part of their preparation for clinical practice which may or may not include experience of the operating department (Nursing and Midwifery Council, 2010b). However, ODP placements focus primarily on all aspects of work in the operating department. As such operating department practice is becoming an increasingly specialised area of training where clinical practice and professional relationships have a different dynamic to those in other areas of the hospital as referred to by the Band 6 Nurse survey respondent above.

These survey participants begin to differentiate between the ranges of placement experiences provided for the respective professions during their preparation which is a theme followed by the interviewees. Like the survey participants, the interviewees had a range of experiences from their pre-registration preparation, but even within professions there appears to be a shift in the way the more recent professionals, holding the current entry level qualification, are prepared when compared with their colleagues holding antecedent awards. The first extract from the interviews supports the survey data. Dill is a Band 6 ODP who completed the original ODP training scheme, the City & Guilds 752 qualification, and felt well prepared:

Very well prepared. I can't fault the City & Guilds training at all. It was very practical, very hands on and, all the inputs, the anaesthetics, the surgery and to some extent the recovery, I was able to practise from day one of qualification, with minimal support.

For Dill, the key to effective preparation for their professional role lies in the access to a substantive period of practice-based development. Their pre-registration preparation was heavily weighted towards learning on the job which was supported by some theoretical input. This theme is recurrent in the data generated by participants completing antecedent awards for ODP and nursing.

One of the major factors in antecedent awards was that the students were employed by a hospital who then took responsibility for their training and development which was supported by a local, hospital-based training centre. This is very much in the traditions of the apprenticeship model of training which is perhaps reflected in the accreditation of antecedent ODP awards by a Guild, i.e. City & Guilds of London Institute. A major feature of this award, alluded to by Dill above, is that newly qualified practitioners were required to be fit for practise on day one of their qualification. This training approach therefore had a primary focus on meeting a service need by students learning employment-specific skills and knowledge from their more experienced colleagues.

The amount of time dedicated to practice-based development for students completing antecedent awards allowed them to develop an organisational awareness; they became immersed in the organisation and learned about the workings of the organisation. Students developed relationships with other members of the team therefore building trust relationships which are in place on qualification. Therefore, the student has built a reputation for themselves prior to commencement of employment in their professional role making the transition from student to autonomous professional appear seamless. This approach is also apparent in the NVQ Level 3 preparation for ODPs as discussed by Fennel, a Band 6 ODP:

I think most of the training was on the job. Because at the time we only did [pauses], we did a one week block and then a two week block at [a hospital-based training school], so nearly all of my training was in house.

Fennel then goes on to discuss their transition from supervised student to autonomous, qualified practitioner:

I think I qualified on the Monday morning and did my first stand-by on the Wednesday, and I was up all night, and, if I hadn't known it then, I knew it by 6 o'clock in the morning because, you know, they [the patients] were all going to ITU, it was all arterial lines and CVPs and I think that did a lot for my confidence because I knew that I could do it. Because it's the first time out on your own, your first stand-by, and you're in the deep end.

As well as their predominantly clinically-based training, Fennel also reflects on their rite of passage into employment via their first stand-by as a qualified practitioner. Stand-bys are a pre-Agenda for Change shift pattern characterised by the practitioner completing their allotted shift, usually a late shift (working something like a 13.00 – 21.00 shift) and then sleeping overnight in the hospital to provide cover for emergencies from the end of their allotted shift until the following morning. This out of hours' work created tension for the newly qualified practitioner as there was no immediate support available for them. The complexity of an emergency case is alluded to by Fennel and managing these situations is the confidence-builder that allowed them to go on and perform in their role. The reference to arterial lines and CVPs relates to specialised invasive blood pressure and haemodynamic status monitoring carried out on acutely ill patients. The preparation of this monitoring equipment and the challenges presented by the patient's condition required Fennel to demonstrate a broad range of technical skills and knowledge within the first week of their qualification.

So, in terms of placements, it is the nature of the placement that is the important characteristic that determines the quality of preparation for practice. These interviewees and the participants in the survey cited earlier are referring to contextualised clinical placements. Contextualised placements provide contextualised experiences which allow the development of skills and knowledge that are specific to an area of work and are developed in the context in which the professional's role will be performed. This incorporates not only the clinical know how, but also knowledge of the organisational structures within which one works. For example, one could argue that aseptic technique is an

essential aspect of nursing and operating department practice. However, the cleansing and redressing of a wound in a ward context requires a contextually different set of skills and knowledge to performing a surgical scrub, gowning and gloving, which forms the basis of the aseptic technique used in the operating department. The importance of undertaking contextualised clinical placements is emphasised in the interview with Tarragon, a Band 7 diplomate nurse, whose pre-registration placement experiences were very different from the ODPs:

When I did my nurse training you didn't spend much time in theatre at all, I think it was one week, maybe two. So to actually get a job in theatre from that perspective I wasn't prepared at all, but from working as an auxiliary nurse, I actually worked on labour ward and spent a lot of time in theatre doing that job. So that actually prepared me more for theatre than the nurse training did.

The lack of contextualised theatre experience during their nurse training is the reason for Tarragon's perceived poor preparation for their role in the operating department. Their transition from ward-based nurse to theatre practitioner was eased by their previous experience as a nursing auxiliary. This experience is shared by Garlic, a Band 6 diplomate nurse:

When I first qualified I did 12 months on an orthopaedic ward. So it was 18 months after I qualified that I came to theatre. And my nursing training didn't prepare me at all for the operating theatre. My nursing training only consisted of one week within an operating theatre which was actually four days in recovery and I saw one procedure in the theatre. . . Basic anatomy and physiology, communication that kind of thing stood me in good stead. All the basics, but nothing specific to theatres was covered in my training that I can recollect.

Garlic commenced their career on a ward and then transferred to the operating department. Again the lack of contextualised placement experience is the major factor in their poor preparation for their role in theatre, although there is acknowledgement that some basic concepts covered in their nurse training transferred across to theatre practice.

The experiences above raise a very important question: if practitioners are entering the operating department with very little clinical experience, how do they develop the contextualised skills and knowledge required for their role? This is answered by Mint, a newly qualified Band 5 graduate nurse, who has completed only one month in theatre:

From the training, I feel like we were quite well prepared because we had the placements and different things. But I never did a placement on theatre so it was all kind of new. But then obviously the Practice Development Team, they did like two weeks of training with me so that helped.

Mint went on to offer suggestions for the pre-registration nursing degree that could help students that want to work in the operating theatre:

I know that for your elective you could pick to come into theatres but you weren't ever really guaranteed your elective. So they could maybe do with like a week . . . because sometimes we'd spend just a week in a placement, like we did a week in recovery, everyone did. So maybe they could have a week in theatres, just to show everyone what it is actually about.

This shows a very different approach to practice-based education. Mint is working in the operating department without ever completing a placement in theatre. There are two striking things about their transition to theatre practitioner. First, Mint was allocated a preceptor after an initial introduction to the department from the Practice Development Team. The preceptor has a key role to play in Mint's development and they will take responsibility for ensuring Mint develops key competences to allow them to perform in their role. Second, Mint's pre-registration preparation was characterised by a number of short placements where they were required to apply their developing body of knowledge to a number of different contexts. For Mint, the move into the operating department is treated as another placement; they are utilising their body of knowledge and applying this to a different context whilst developing their clinical skills through the preceptorship programme.

For many practitioners with antecedent awards this approach to training is very different to their contextualised experience, and Mint would present as poorly

prepared for their role due to their lack of ability to perform in the role on day one. However, Mint is reliant on the all-round preparation from their training programme which leads on to the second emergent theme.

6.2.1.2 Training programme

The training programme theme includes reference to clinical placement activity, but importantly acknowledges the role of college/university-based support in developing the professional body of knowledge. Although practitioners with antecedent awards received theoretical input, the current training programmes place greater emphasis on the academic aspect of developing a sound body of professional knowledge which can be applied to a range of clinical situations as alluded to by Mint above. This creates a dichotomy in relation to the perceptions of practitioners with differing awards as highlighted by the two extracts that follow. The first is from Sage, a Band 5 ODP diplomate, who feels that the combination of theory and practice was essential to their good preparation for professional practice:

I think I was very well prepared. Obviously because I trained here and got my job here, I think the mixture of theory and practice helped. . . I'm talking to students now and I describe it like passing your driving test. You've got the theory and you've had a go, but until you pass your test you don't actually get to grips with things. I think that's the same with being an ODP . . . I think you learn every day. You learn from experience. Ultimately we're working with individual patients with individual needs and individual instances happen that you, you know, you can learn from and . . . I reflect quite a lot so it's . . . it just makes you a better ODP, the more things you experience and that's from a day to day basis.

The second comment is from Bay, a Band 6 ODP holding the antecedent NVQ Level 3, who feels that the current students are poorly prepared for professional practice due to an over-reliance on the academic input:

I think [new practitioners] are quite well prepared theory wise, but I don't feel that they've got enough hands on practice, because this job is a very practical job and I feel that some of them, when they qualify, come out of it still feeling that they need mollycoddling a bit and baby-sitting and I don't feel they're as well prepared as we were. . . They say 'but we're a university student' and that sort of protects them a little bit. Whereas we weren't classed as a university student, we were just classed as, 'well

you're training on the job' . . . and that's how I feel about it. They sort of use the university lifestyle as an excuse to not get involved as much as we did . . . We were employed by the hospital, so we didn't have that sort of university status like they do now. We were employed by our trust. So I felt as though we got more involved because you were employed as an employee as well as training at the same time but you were expected to get involved a bit more. You couldn't use this university status, I feel, to hide behind.

Although Sage acknowledges that the theory/practice combination provided a good preparation for them to progress into professional practice, they were by no means the *finished article* as Dill suggested they were in section 6.2.1.1. Instead Sage takes a reflective approach to their practice to allow them to learn experientially as they encounter different situations. The reflective approach referred to by this interviewee serves as a consolidation of their professional preparation and demonstrates how they develop the work based competences required for their professional practice (Brooks and Everett, 2009). It is also evident from this analysis that there is interplay between clinical experiences and engagement in patient care and the development of a sound body of professional knowledge.

However, Bay views this differently. For Bay there is an over-emphasis on the academic work which detracts from the students' practical experiences (cf. Bisholt, 2012). They also reflect on a change in emphasis in student status. Enrolment on antecedent awards was coupled with employment in a hospital who funded their students' training and provided access to learning opportunities. As such, the student was inducted into an organisational network, with a focus on preparing the student for the needs of the service provided by the hospital. Bay identifies the shift in student status from employee to university enrollee who is based within the operating department for a fixed period of time to develop specific skills and knowledge before moving on to another area of practice. This was the feature of professional preparation that led Mint in section 6.2.1.1 to feel that they were well prepared for their role; the breadth of clinical experiences encountered in support of the development of their body of knowledge. Bay suggests that students hide behind their university

status and use this as an excuse for not fully involving themselves in clinical situations, which is why Bay feels these students are not as well prepared for their role in the operating department.

Sage's analogy to the driving test is a useful one. As discussed earlier, the students develop a core body of skills and knowledge which can be applied to a range of clinical situations on qualification. However, the newly qualified practitioner will require help and support, not only to make the transition from student to practitioner, but also to learn how their employing organisation works. Figure 6.2 (page 171) shows two emergent themes that reflect this: prior experience and knowledge of the area of practice and clinical supervision.

6.2.1.3 Prior experience and knowledge of the area of practice

The main feature of this theme is that practitioners have existing knowledge of either the environment or health care practices prior to the commencement of their professional preparation. From the 13 survey respondents who identified this theme as the main factor in their effective preparation for practice, nine were employed in a support worker capacity in theatre prior to commencement of their training. The importance of this prior experience is reflected in their understanding of the workings of the operating department and developing an insight into the role of the theatre practitioner as identified by this Band 6 ODP survey participant. Their effective preparation for their professional role was based on them "Previously working in theatres as a HCSW [Health Care Support Worker] and finding out about the role and what is expected once qualifying".

However, this prior knowledge of the area may come at a price as discussed by Sage:

I was from a caring background, you know, I'd worked with patients before in a care home setting . . . I think sometimes attitudes are different when they come from theatre and then go on to do their training. But again, I think it's an individual thing . . . I think with the whole theatre team there may be a different attitude towards that student. Probably the theatre team expect more from that student because of their background

and knowledge of theatre. So I think it works both ways. I don't think . . . students can be sort of over-familiar with . . . it is an expectation that's put on their shoulders if they come from theatre.

(Sage, Band 5 ODP)

There are two important aspects relating to prior experience highlighted in this interview extract. First is the familiarity of the student with their surroundings and with the members of the team. This familiarity could breed contempt, particularly as these students appear more confident in voicing their opinions (being 'over familiar'). This could possibly lead to difficulties for the student and may bring into question their conduct if they are too outspoken or over-confident. The second is the way these students are viewed by the immediate theatre team. As these students are already known by staff in their placement area, there is a greater expectation placed on them due to their knowledge of the department and the professional role. However, many of these students have made the transition from a Health Care Support Worker role, which is very different from the role and responsibilities of an ODP or theatre nurse. It would be interesting to investigate how these particular students make the transition from their support worker role to pre-registration professional preparation to determine whether their prior knowledge of the department is, in fact, help or hindrance.

Sage had prior experience of a health care setting, but not in the operating department and was still able to utilise their experience in their training. The acknowledgement of the individuality of the process is also important, as the individual has to make their prior experience work for them in their new role if it is to be of any benefit to them. In contrast student nurses appear to use any experience they have of the operating department during their training period to determine whether this is a suitable area for them to utilise their nursing skills and knowledge.

I trained as a RGN prior to Project 2000, so an allocation in the operating department was standard in our training. It is because of this allocation that I decided to become a theatre nurse.

(Band 5 Nurse survey participant)

I knew from day one, from the first day of my experience in theatres that that's where I wanted to work even though I initially came with a very reluctant attitude and said to myself 'it's only three weeks, it'll soon fly. Just keep your head down, etcetera.' From the end of the first day I knew that I wanted theatres or recovery or I wanted to work in that environment.

(Chive, Band 8a Nurse interviewee)

These two nurses used their theatre experience during their training to inform their decision to work in the operating department. It is clear from these extracts that their theatre placement was influential in their career decision reinforcing Wolbers' (2003) contention that the inclusion of a vocationally relevant element in the training programme assists in developing employability. However, on entry to their first job, there is a need to support their transition from supervised student to autonomous registrant.

6.2.1.4 Clinical supervision

Clinical supervision is provided on two fronts. First, as a student, placement experiences are supervised by a mentor who facilitates student development and involves them in a range of clinical activities appropriate for the students' level of development. Second, post qualification, newly qualified practitioners engage in a period of preceptorship which is the focus of this section of analysis.

Preceptorship is a period of supported clinical practice designed to facilitate the transition from student to qualified, autonomous practitioner (Department of Health, 2010c). The preceptorship framework presented by the Department of Health (2010c) points out that this is not a period of additional training used to make up for a short-fall in pre-registration preparation. However, Mint's experience (section 6.2.1.1) suggests that their preceptorship is just this; a period where newly qualified staff will develop the contextualised skills and knowledge required to work in the operating department. This finding is reinforced by Chive, a Band 8a diplomate nurse. When asked how well prepared they were for their role in the operating department they replied:

For the variety of patients and the variety of clinical knowledge, I wasn't that prepared. But then again I knew there was going to be a six-month preceptorship followed by another six months' preceptorship and, at the time, I was very well mentored.

So Chive had two periods of preceptorship providing a total period of 12 months. During this time, they were able to contextualise their knowledge and skills to the operating department. However, as demonstrated in Chapter 4, nurses entering the operating department have a relatively narrow scope of practice compared to their ODP counterparts, confined to either scrub/circulating or recovery duties.

The preceptorship period is not aimed solely at nurses. All newly qualified practitioners (including ODPs) engage in this process as detailed by Thyme, a Band 7 ODP:

We've got a structured preceptorship that we complete with them [newly qualified practitioners]. So it's a matter of working through that. But we do set it at 12 months. But we've got some students . . . some newly qualified staff that come in and progress obviously quicker than others.

The importance of the preceptorship period in allowing the newly qualified practitioner to contextualise their body of professional skills and knowledge to the operating department offers a new perspective on the purpose of pre-registration preparation. Thyme implies that some practitioners complete their preceptorship quicker than others suggesting that there is some assessed outcome to this period of supervised practice. Dill (Band 6 ODP) was asked directly what they thought the purpose of initial pre-registration training was:

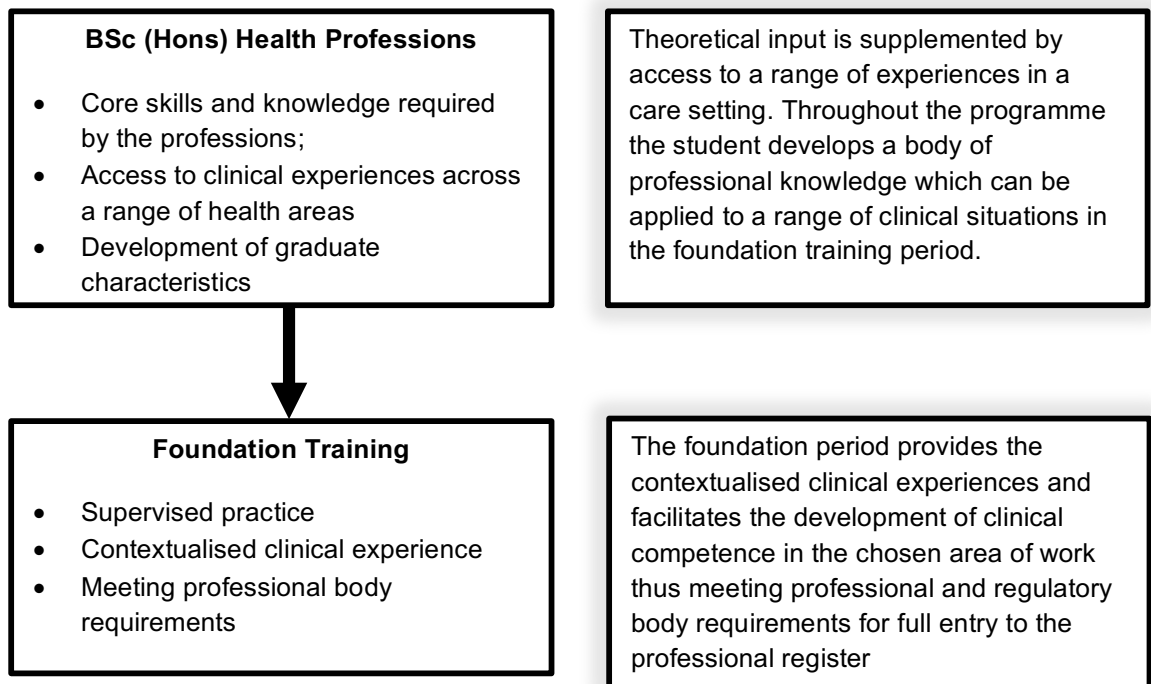
To prepare them for [pauses] practice. Although I know that the word professional practice is missing out of that as it enables them to register. And I think as a . . . depending on which hat I've got on . . . If I was still working in clinical practice full time, I would expect those individuals to come out, the same as we did, rightly or wrongly, and *be able to practise straight away*. But looking at it from a practice development view-point, I know that there is that need and an expectation for them to have a support period for them.

(My emphasis)

The essential aspect of this interview extract is fitness to practise, and to be able to do so from the first day of employment as a newly qualified practitioner. Thus the need for a period of preceptorship is eliminated as the contextualised experiences received by the student during their pre-registration professional training develops their fitness to practise. Certainly this requirement is consistent with the modern NHS where the operating department is dogged by scarcity of human resource (Department of Health, 2010a). However, there is some acknowledgement of the need for a support period to aid transition into professional practice.

As noted earlier in this chapter (section 6.2.1.1), although contextualised experience is an essential part of preparation for professional practice, this experience does not necessarily have to be gained during the pre-registration period as long as a sound body of core clinical skills and professional knowledge are developed. Does this therefore represent the start of a paradigm shift in the way health professionals are prepared for their role? The future of professional training could conceivably be based around the completion of a generic health studies degree which contains an element of work experience in a clinical setting followed by an extended period of preceptorship to facilitate development of the contextualised skills and knowledge required for professional practice in the chosen area of work (see figure 6.3 for a schematic on how this preparation could look). Utilisation of such a model of preparation reflects the preparation of medical practitioners who are required to complete a two-year foundation programme on commencement of their career to develop the contextualised skills and knowledge required for medical practice. During this period, the practitioner would also be inducted into organisational practices as suggested by Robinson and Garton (2008).

Figure 6.3: Vision of future professional preparation for health care professionals developed from this analysis.



So far the analysis focuses on those individuals who have made a conscious decision to work in the operating department. Some newly qualified practitioners appear to have no choice in their employment in the operating department, which leads to the final emergent theme.

6.2.1.5 Organisational requirements

At present student nurse and ODP training is commissioned on behalf of the Department of Health by regional branches of Health Education England (Health Education England, 2015) based on workforce plans developed by the individual NHS trusts. It is conceivable that the workforce plans developed for the commissioning process do not accurately reflect the workforce needs of some hospital departments due to a prioritisation of workforce needs on specific areas. Therefore, newly qualified nurses could be allocated to the operating department based on organisational need due to a shortage of qualified practitioners and this happened to one of the survey participants who felt that

this was responsible for their poor preparation for their role in the operating department: “This was for demographic reasons due to a change in Trust” (Band 5 Nurse survey respondent).

This area requires further investigation as it raises questions about how employers view and utilise their workforce. Although this appears to be an isolated incident in this study, it is possible that this situation is replicated in other operating departments and may have an impact on the department’s ability to retain staff. The underlying issue lies in recruitment and retention of staff. It is evident in this case that the employer has formed a view of the nursing role and the scope and limitations of nursing practice and chooses to utilise them as they see fit. Although further exploration of this theme is beyond the scope of the current study, a logical progression of this scenario sees the nurse, unless they develop a desire to remain within the operating department, leaving the organisation as their professional needs have not been met.

The findings from this section of analysis highlight some important issues for the preparation and utilisation of health professionals working in the operating department. First, it has to be acknowledged that the operating department is a specialist area of work and, as such requires specialist skills and knowledge to be developed by registered practitioners working in this area of clinical practice. Whether this specialist knowledge is developed during the initial training (as it is with ODPs currently) or during a foundation period where the contextualised skills and knowledge are developed either prior to professional registration or as a condition of maintaining registration is a matter for professional and regulatory bodies to consider.

The academic credential awarded to health professionals should be considered as it appears that diplomate ODPs are better prepared for their role in the department than diplomate and graduate nurses due to the contextualisation of the ODP preparation for practice. There is also concern expressed by professionals holding antecedent awards over the benefits of academicisation

of health professionals' preparation which is an area that the analysis now turns to.

6.3 Added Value Brought to Clinical Performance by the Possession of Higher Level Qualifications

The agenda to push through the academicisation of health professional preparation is well advanced and, as this analysis shows, a number of practitioners are improving their academic credential to keep up with the new graduate breed of registrants. However, the benefit of increasing the academic credential for entry to professional practice has not been established. The research literature suggests an improvement in the quality of patient care. Government and professional body policy is based on the research of Aiken *et al.* (2003) who claim to provide empirical evidence of this correlation. As professionals' preparation for their role is, and has always been, practice-based, the main benefit of graduate entry must lie in the development of graduate characteristics (referred to as graduateness). It is clear from the analysis in Chapter 5, however, that these characteristics must be developed in conjunction with employability skills (Robinson & Garton, 2008). To gauge the strength of feeling towards graduate entry from both professions, survey participants completed two Likert-style items, the results of which are shown in figure 6.4.

Figure 6.4: ODPs and nurses' views on graduate entry

a. Having a degree will not impact on my ability to perform my role in the operating department

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
ODP (n = 38)	39.5%	34.2%	18.4%	7.9%	-
Nurse (n = 22)	31.8%	31.8%	22.7%	9.1%	4.6%

b. A degree is not required to perform the role of ODP/nurse in the operating department

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	28.9%	57.9%	7.9%	-	-	5.3%
Nurse (n = 22)	9.1%	50.0%	13.6%	9.1%	4.6%	13.6%

Figure 6.4 demonstrates overwhelmingly that this sample of practitioners do not feel that possession of a degree level credential is required for professional practice in the operating department. The results are not surprising as earlier analysis of the academic credentials held by ODPs and nurses (figure 4.1) shows that 22.7% of the nurse and 2.6% of the ODP samples hold a degree as their professional entry level qualification. The vast majority of this sample of practitioners have been practising based on either possession of antecedent or the current diploma-level ODP entry credentials. As such, this strength of feeling is presented in a climate of policy review and change relating to professional entry levels. So why the opposition towards graduate entry? This is summed up by Parsley, the Band 8b ODP interviewee:

. . . we've got to have a fine balance as long as the people that are coming into the job know that it's not purely theory, academic. You know when you finish that it is actually *hands on in the job*.

(My emphasis)

Again there's reference to the *hands on* nature of the role. The hands on practical role must surely be based on a body of professional knowledge. The research literature surrounding the move to graduate entry for nursing in particular identifies the changing demands placed on health service delivery created by an aging population, living with a range of co-morbidities that make their care complex (Nursing and Midwifery Council, 2010a). Added to this are the technological advancements in the care and treatment of these conditions. There is acknowledgement that during pre-registration preparation it is impossible to cover the full range of conditions that a practitioner will come across in their career, so a key part of their preparation is to develop the relevant graduate characteristics to enable them to search for, appraise and assimilate research evidence to provide evidence-based care for their patients.

6.3.1 Academic credentials and gradueness

As mentioned earlier, undergraduate higher education awards are based around the Dublin first cycle descriptors which provide the benchmark statements in the Higher Education Qualifications Framework (QAA, 2014). These characteristics, when combined, form the concept of gradueness which is a combination of academic abilities and employability characteristics (Robinson & Garton, 2008). Survey participants completed a Likert scale composed of items taken from the Dublin first cycle descriptors (Sirca *et al.*, 2006) and were asked to relate these to their pre-registration training regardless of academic level. The results presented in figure 6.5a and b are shown as percentages so that a direct comparison can be made between the proportions of the ODP and nurse samples.

Overall, both professional groups feel that their pre-registration preparation developed the relevant graduate characteristics as evidenced by the proportion of responses in the strongly agree and agree areas of the scale. The main exception to this trend relates to the understanding and knowledge developed by the nursing sample (figure 6.5b). Here 18.2% of the sample do not agree that their professional preparation developed the contextualised knowledge required for their role in the operating department. This is borne out by the earlier analysis relating to contextualised experience.

Figure 6.5a: Graduate characteristics in relation to pre-registration preparation for ODPs (n = 38)

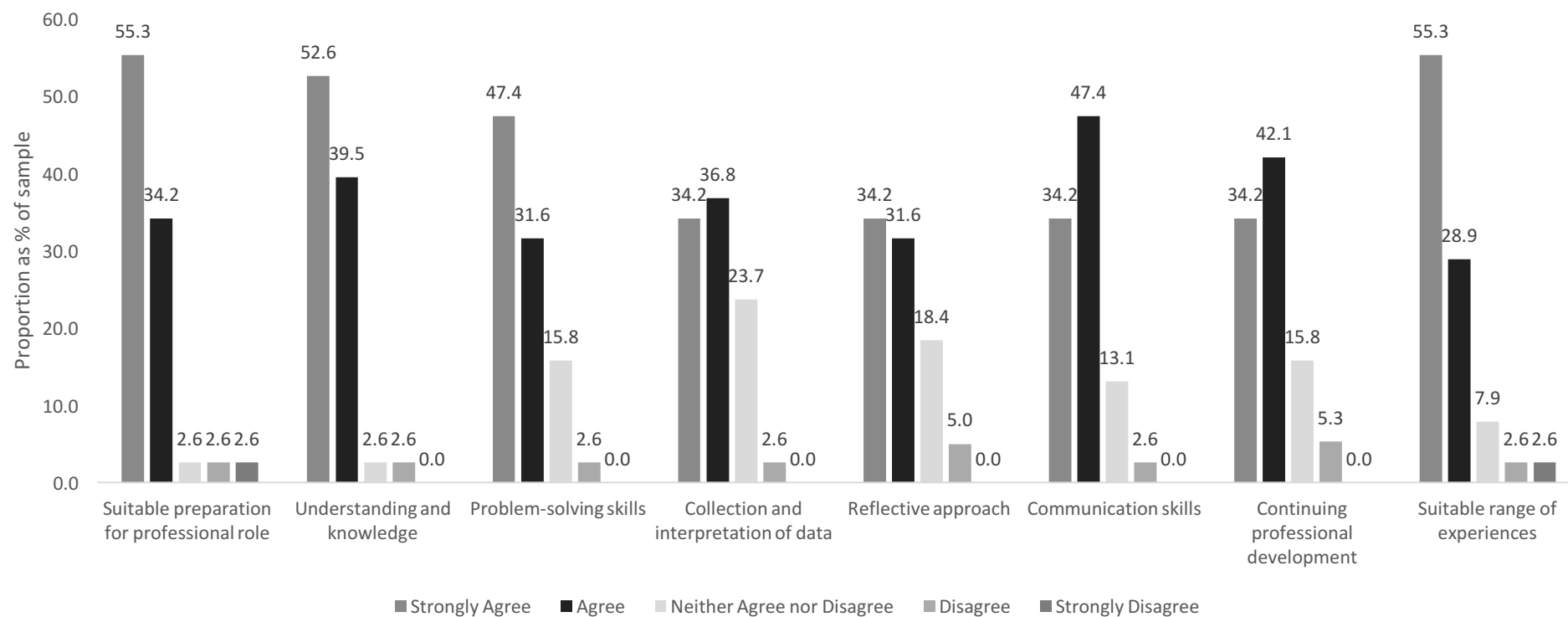
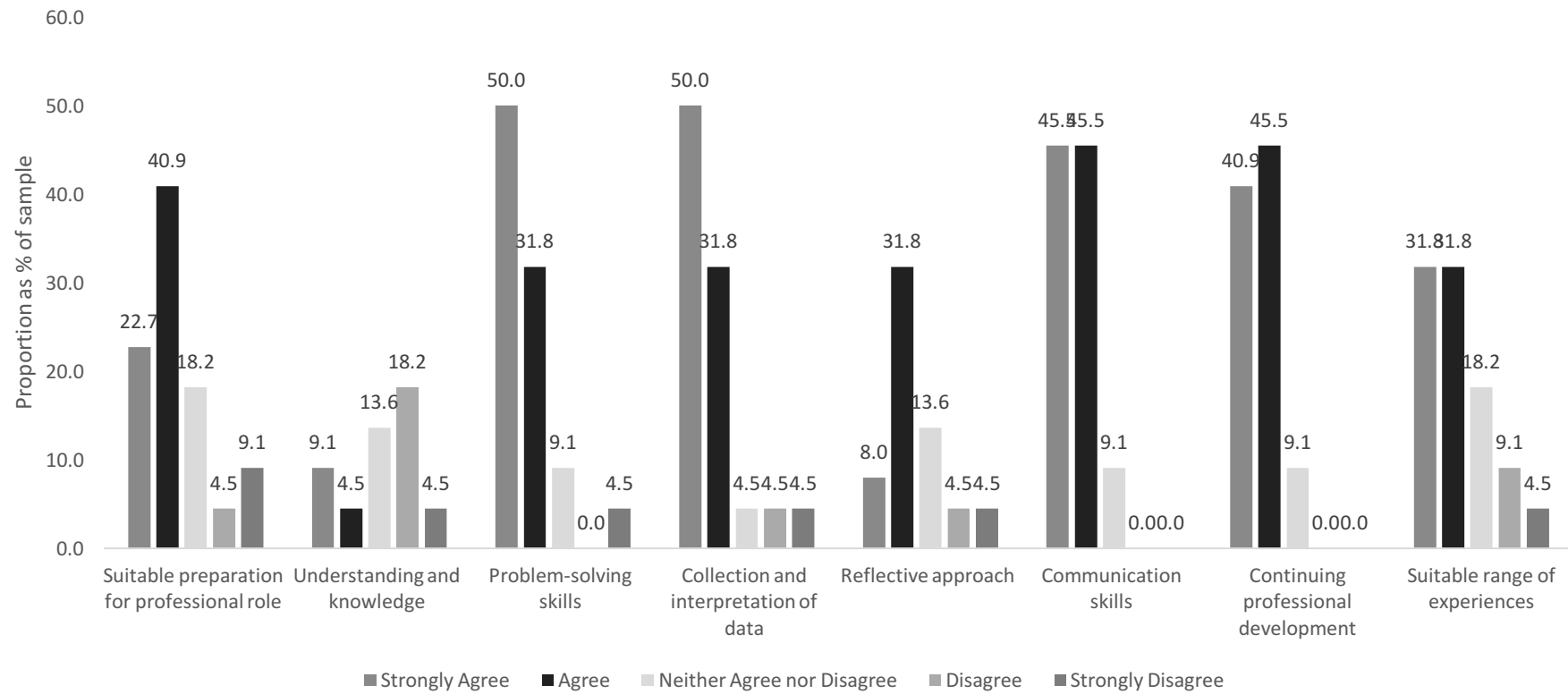


Figure 6.5b: Graduate characteristics in relation to pre-registration preparation for nurses (n = 22)



The strongest areas of agreement for ODPs are in the suitable preparation for their professional role, understanding and knowledge, problem solving and suitable range of experience items in the scale. This reflects the hands on nature of the role alluded to by Parsley, quoted above (page 188).

The strongest areas of agreement in the nursing sample lie in the problem-solving, collection and interpretation of data, communication and CPD items in the scale. This could be accounted for by the longer association of the nursing profession with higher education which is reflected in a more cognitive approach to their professional practice. These results are somewhat surprising as earlier analysis dismisses degree level study and, by association, gradueness as a requirement for the role in the operating department. However, these findings must be treated with caution due to the small sample size. The participants were asked to review each item against their pre-registration training, but one cannot exclude the possibility that they were, in fact, reflecting on their current position and therefore included their wealth of experience in their response. Nevertheless, it appears that both professional groups have developed graduate characteristics and there remains the possibility that, as clinical practice has become more challenging and technical, practitioners have naturally evolved to be able to provide the level of service required of them from informal learning activities (Livingstone, 1997).

Linked with the development of graduate skills is the suggestion that graduate entry enhances leadership skills and the quality of patient care. Survey participants' attitudes towards these aspects associated with degree level entry were also tested through Likert-style items (figure 6.6).

Figure 6.6: ODP and nurse participant attitudes relating to the development of leadership skills and enhanced patient care as a result of graduate entry

- a. Studying at degree level will develop the way I think about patient care, making me more responsive to patient needs.

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	7.9%	15.8%	26.3%	36.8%	7.9%	5.3%
Nurse (n = 22)	27.3%	31.9%	18.2%	13.6%	4.5%	4.5%

- b. Degree level study will allow me to develop my leadership skills.

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	10.5%	31.7%	36.8%	15.8%	2.6%	2.6%
Nurse (n = 22)	27.3%	40.9%	18.2%	9.1%	4.5%	-

- c. Degree level study improves patient care.

Profession	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	Missing Data
ODP (n = 38)	-	10.5%	23.7%	44.8%	18.4%	2.6%
Nurse (n = 22)	13.6%	18.2%	27.3%	27.3%	9.1%	4.5%

The results presented in figure 6.6 highlight a difference of viewpoints between the two professional groups. The largest difference is shown in figure 6.6a where there is disagreement that degree level study makes the practitioner more responsive to patient needs from the ODP (36.8%) sample. However, nurses (31.9%) agree with this statement and this perhaps highlights further the differing views of the two groups regarding their professional role. It is evident from the data presented that ODPs view their role as a practical, hands on role where their skills and knowledge are developed experientially. The focus for nursing is on the academic component and the characteristics developed as a result of studying higher education-based awards.

In terms of the development of leadership skills (figure 6.6b), nurses agree (40.9%) that degree level study develops leadership skills and the larger proportion of the ODP (42.2% - aggregated data) responses fall in agree and strongly agree although the most common response (36.8%) of this sample falls in the ambivalent, neither agree nor disagree area. As earlier analysis shows, a number of ODPs and nurses are improving their academic credential by engaging in degree level study and one of the mandatory modules offered in the local university's degree pathway is leadership. Therefore, this result could be explained by practitioners' association with this degree level, post-registration pathway. Indeed, the interviewees participating in this study appear to be suggesting that formal credentialised study is required to support experiential learning in the development of leadership skills.

The link between degree level study and improved patient care (figure 6.6c) is dismissed by both of the professional groups participating in this study. The proportion of ODPs (63.2%) in disagree and strongly disagree is close to twice that of the nursing (36.4%) sample. However, a larger proportion of the nursing sample are in agreement with this statement (31.8% - aggregation of strongly agree and agree data) than the ODP sample. Again, the ODP rejection is potentially based on the need for contextualised experiences to support the development of the professional body of knowledge. Therefore, it is not enough to hold the academic credential for entry to the profession. One has to be able to apply this to the range of clinical situations encountered on a daily basis to impact on the quality of care received by patients in the operating department.

These issues were followed up in the interviews where interviewees were presented with the preliminary survey findings and were asked if clinical practice had developed to a point where displaying gradueness as part of the job provided sufficient justification for a move to graduate entry for both ODPs and nurses. This polarised perception amongst the interviewees. The interviewees that agreed with the move to graduate entry based on the increasing complexities of the role acknowledged the need for a detailed understanding of theoretical concepts to underpin clinical practice. Parsley provided an insight into local service delivery based on the local health demographic:

So here, we are an acute trust and my goodness are we with capital A, because the cases that we see through here are major, major stuff. So I actually feel for student nurses and trainee ODPs because they're not broken into it gently . . . they need to know and that does reflect on their academic skills . . . certainly these days because patients are so sick, people definitely need far more robust academic skills as well as the practical.

Parsley identifies the complexity of local service delivery that requires a workforce that are able to internalise data about the patient's condition and formulate a suitable plan of care. This has impacted on the ability for students to learn and develop their skills and knowledge in a logically structured way in this trust. Due to the complexity of cases and the poor condition of some patients, students are thrown in at the deep end which is very daunting for them, especially at the beginning of their training. However, students and qualified practitioners are regularly required to apply their professional body of knowledge to a range of novel situations and therefore are required to be prepared academically for this. What is evident here is that evolving care and treatment of patients requires a workforce that can evolve to meet the demands of service delivery.

The opposite view is presented by Fennel (Band 6 ODP) who feels that it is the experience gained post-registration that is important in continually meeting the health needs of the local population:

I don't think me having a degree would make me any better at my job. I don't feel it would. I think even if I do complete these degree modules and I get a degree at the end of it, I don't feel that it would make me any better a practitioner than somebody who'd got the NVQ 3 the same as me. I think there's people out there who have come and got degrees or diplomas and I don't think they're any better a practitioner than I am.

Fennel acknowledges an evolution in clinical practice that requires practitioners to evolve with it. However, the evolution of practitioners is based on experiential learning rather than a formal, credentialised approach. Based on this analysis it appears that there is a tension between hands on service delivery and the academic credential required to prepare practitioners for clinical practice, a re-

opening of the theory – practice divide that needs to be reconciled for the ODP profession.

Data generated from the survey and interviews presented an unexpected emergent theme. A number of participants reflected on the potential impact on the professions as a result of implementing graduate entry.

6.4 The Impact of Degree Level Entry: Unintended Consequences

In investigating the benefits of graduate entry to the health professions two major unintended consequences were unearthed: the consequences for the ODP profession, as a whole, should they fail to achieve graduate entry status, and the consequences for the future of both the ODP and nursing professions.

6.4.1 The consequences for the ODP profession should they fail to achieve graduate entry status

A number of survey participants had alluded to this issue from a personal perspective. When asked about the impact of a move to graduate entry on their career, there was a lot of discussion of a potential negative impact on career development and a perceived need to improve their individual academic credential. The impact on professional relationships is clearly a concern; relationships with other qualified practitioners, and mentor/mentee relationships as illustrated in these two examples:

It is possible the graduates may (and I stress they may) try to make other team members with what they perceive to be a lesser qualification inferior to themselves.

(Band 5 Nurse survey participant)

And:

Unsure on how well we can mentor students learning at a level 'above' our own academic qualification. Will students learning be happy or judge us on that? Or will we be expected to improve our own qualification?

(Band 6 ODP survey participant)

For both of these practitioners the main concern relates to how their academic credential is perceived by others who hold, or who are studying for, a higher academic qualification to perform the same job. However, this is taken a stage further by one Band 6 Nurse survey participant: "I'll probably be downgraded!!!" Although this was probably a tongue-in-cheek statement (suggested by the three exclamation marks), this was an issue raised in the interview with Chive:

What you need to do is have a look at the ODPs and the nurse training now. If the nurses are coming out with a degree, it's only natural that the ODPs are going to come out with a degree. Because you need to have something to justify your level of academia to get that level of qualification to qualify at a Band 5. Nurses and ODPs are working in the same environment, to the same grades as each other. If you're seeing tighter restrictions or more involvements regarding a regulatory body for one, it's only a matter of time before the other one catches up.

(Chive, Band 8a Nurse)

The inference that can be drawn from Chive's comment is that if the professional that falls behind in evolutionary development does not adapt, they become extinct; the premise of maladaptation. In moving from the micro-, individual level of analysis to the meso-professional level brings the analysis back to the red queen hypothesis. Chive identifies a feature of professional evolution resonant of that in business where the advancement in one area of service is followed by similar advancements in other areas (Barnett & Hansen, 1996). Failure of the ODP profession to secure a similar entry credential to that of nursing carries the potential threat of reduced salary, not because they are not able to perform their role effectively, but because the expectation for access to a Band 5 salary could become inflated based on the move to degree level professional entry.

6.4.2 The consequences for the future of the professions

This second possible unintended consequence of the move to graduate entry relates to recruitment and retention. Retention of graduate nurses was an issue highlighted by Robinson *et al.* (2003) who found that graduates were more likely to leave the nursing profession within the 18 – 36-month period as their

graduate aspirations had not been met. The motives of those accessing graduate nursing and ODP were questioned by the participants in this study with an overall suggestion that those entering the profession may not be doing so for the right reasons (i.e. to care for patients) reflecting the trade-off between the vocational call to nursing and nursing as a means of financial gain introduced by Cutcliffe and Wieck (2008).

The other theme emerging from the survey and interviews in the current study is that moving to graduate entry raises the entry criteria for access to professional training. In raising these criteria, a number of potential applicants who, in the eyes of the participants in this sample, would make excellent care professionals, will be excluded from applying due to a lack of academic credentials.

6.4.2.1 Access to professional preparation

Access to pre-registration preparation is regulated by universities in conjunction with professional and regulatory bodies. The nursing profession comes from a background where the headline entry level was set at GCSE, and ODP from a background of open access which underpinned National Vocational Qualifications. Therefore, the move to higher education and the requirement to meet a pre-specified number of points on the UCAS tariff⁸ has created tensions within the professions around recruitment and retention of students. Many practitioners feel that the move to graduate entry will further inflate the entry criteria thereby restricting the pool of applicants available for selection as these three examples from the survey illustrate:

A lot of "good" practical/able people will be unable to join the professions as they don't have the qualifications required.

(Band 6 Nurse)

⁸ The University & Colleges Admissions Service (UCAS) manages the application process to higher education in the United Kingdom. Due to the diversity of qualifications applicants use for access to their higher studies, a tariff system has been devised which allocates each set of qualifications, and grades within a qualification system, a number of points. This provides universities with a comparable measure across qualifications which forms the basis of their entry criteria.

I think it [graduate entry] will have an adverse effect upon the role. I believe that the higher entry requirements will lead to a smaller pool of applicants with less life skills which I believe are extremely useful to the ODP.

(Band 6 ODP)

I think it [graduate entry] is very important to maintain the standard of student candidates, but I know many qualified ODPs who would not have the grades/qualifications to enter the degree qualification if they were to try now. Many excellent ODPs that I have come across have entered the profession as mature students like myself. I have previously gained an Honours degree and would have been put off by having to complete a 3-year degree course, and would probably not have been able to complete on financial grounds.

(Band 6 ODP)

The exclusion of potential applicants due to their not holding the appropriate access credentials may create tensions for the support worker workforce who see access to professional preparation as a way of progressing their career. As pointed out in the third example above, it is essential that the quality of student candidates is maintained as the professions need an influx of students who can manage both the practicalities of the role and the academic demands of the training programme.

6.4.2.2 The motives of students accessing pre-registration health preparation

Interviewees questioned the motives of those who may apply for graduate level professional preparation, suggesting that the focus of these students is on the academic credential rather than the professional role:

In my experience some people have got all the academic things and they can't put it into practice, and then you've got some people who can put everything into practice but they haven't got the knowledge or they find it difficult. I think it's just different learning styles with people. And they probably get to the goal in the end but they get there differently don't they? And, I think there's an element of when I came into the job, and a lot of people, you came in because you are of that nature. You are of a caring nature. It's not just about doing a job. It's the emotional side of it that you put in and you get out of it, you know. It's a rewarding job caring

for people. People say 'I can earn this much money; I can go into that job because I can just do it all'. Are they going into it for the right reasons?

(Thyme, Band 7 ODP)

Thyme highlights the issue of people pursuing a vocation over an academic credential. This suggests that there is an internal calling into the health professions based on an individual desire to help people (Larsen, McGill and Palmer, 2003). Thyme suggests that values within healthcare applicants have changed over the years which supports the findings of O'Driscoll, Allan and Smith (2010). The view is that current applicants are more inclined to be motivated by the rhetoric surrounding the enhanced earning capacity of graduates rather than the core purpose of the role in providing patient care. This may be one of the features leading to graduate attrition in the nursing profession highlighted by Robinson *et al.* (2003), where graduates' aspirations in terms of increased earning and career progression were not met. However, this has implications for patient care. The literature supporting graduate entry to nursing abounds with discourse surrounding improved quality of care. If the motivation and mind-set of applicants is altered based on their focus on the academic credential it is conceivable that standards of care will fall.

This is not just a phenomenon associated with the ODP profession. Tarragon paints a similar picture and states that as a result of graduate entry:

I think you're going to get less people [applicants for the health professions] coming through because people that want degrees. Why would you come into nursing if you want to work to that level? There are better paid jobs that do less . . . the hours that we do are ridiculous aren't they sometimes? You know, 365 days a year, seven days a week, 24 hours . . . people don't necessarily want those hours and I think again, I don't know, it's just down to academics don't want to work that kind of pattern. If they do, they want to come in and go into management which doesn't cover those hours

Tarragon goes on:

When I did my training, and that's a long time ago now, there were actually people in my group, that were doing the nursing and were going to get the diploma, but they had no intention of coming into nursing. After they'd done that, they were going to move on to the next course and then moving on to the next course. And they actually made their life going

from course to course, they'd get paid their bursary, they'd get paid whatever, but that's all they wanted to do. And it was just, you know, obviously intelligent because they can do that but didn't care about what was happening behind them. You know, so I've seen that kind of thing. And I've seen people that are very intelligent; you give them a practical task and they're lost with it.

(Tarragon, Band 7 Nurse)

As a result of the focus of some individuals on the academic credential, Tarragon believes it will be difficult to recruit the right type of people into the clinical area. Attracting the right type of person is essential in delivering a high quality health service as the Conservative government maintain their strategy of getting the right people, with the right skills to provide patient care (Department of Health 2010a). Failure to do so, as suggested by Tarragon, raises concerns for patient care due to a potential lack of focus on the patient as the practitioner's vocational aspirations lie elsewhere.

6.5 Conclusion

The analysis in this chapter resonates with the research of Brooks and Everett (2009) who discovered that the academic credential was not the sole determinant of an effective workforce. The workforce has to develop employability skills that allow the individual to place their learning into the context of their work role. Effective preparation for operating department practice is based on the development of contextualised knowledge and experiences and the analysis demonstrates that this may be developed in different ways. The analysis also shows that clinical practice has developed as a result of the introduction of new technology, which provides some justification for an increase in the academic level of professional entry-level qualification. However, increasing the academic level of entry to the profession may result in unintended consequences relating to the exclusion of a body of workers who are perceived to hold desirable characteristics for professional training, and the motives of the new breed of applicants for professional training.

Chapter 7: Conclusion

7.1 Introduction

This chapter offers a conclusion based on the findings of the current study, placing these in the context of each of the primary research questions. It also demonstrates the original contribution of the research to the knowledge of health professionals' education. The mixed-methods investigation into human capital in the operating department has used Becker's (1993) human capital theory as a theoretical and conceptual framework to investigate the impact of raising the entry-level academic credential to Operating Department Practice and theatre nursing. The study spans both pre- and post-registration periods to examine the effectiveness of preparation for professional practice, and has taken place against a backdrop of health policy which increasingly focuses on having appropriately skilled and qualified staff in a position to deliver a 24 hour, seven-day service (NHS England, 2014).

This chapter demonstrates how each of the primary research questions have been addressed by presenting a modified conceptualisation of human capital theory. Becker's original theory is taken away from its linear relationships between education, productivity and remuneration and places human capital development within a multidimensional model. In doing this the criticisms of Becker's theory are addressed, taking the focus away from the organisational and placing equal emphasis on the individuals involved and their circumstances. The contribution of this to the field of education are discussed later in this chapter, which also provides recommendations for policy and practice, and identifies areas where further research is required. The final part of the chapter reflects on the research process as a whole, which includes consideration of the strengths and limitations of the current study.

7.2 Addressing the Research Questions

The data analysis in chapters 4 – 6 addresses the three primary research questions emanating from the literature review and aims to fill the gaps in

knowledge in the field. Each of these questions focus on the domains associated with human capital development. Chapter 4 examines the relationship between academic credentials and the practitioner's position in the workforce and the development of working relationships. The analysis then moves on to explore the determinants of investment in human capital development post-qualification (Chapter 5). The final analysis chapter (Chapter 6) investigates the relationship of higher level qualifications and working practices in the operating department. The key findings from the analysis are now brought together under the themes of the primary research questions to demonstrate the inter-play between each of the dimensions of the reconceptualised model of human capital development, and offer a conclusion to the study.

7.2.1 The relationship between a professional's highest academic qualification and their position in the workforce

Chapter 4 provides an analysis of theatre workforce practices in relation to the practitioner's professional qualification and their highest academic credential. Quantitative data from the survey are used to demonstrate the current scope of practice for ODPs and nurses, showing that ODPs work across all key areas of the operating department and a range of associated areas (e.g. patient transfer between hospitals, intensive care), while nurses work predominantly in either surgical or recovery areas. The roles carried out by each professional group are not dependent on the academic level of their preparation for professional practice, but are based on the context of the practitioners' professional preparation prior to registration. The broader scope of practice for ODPs is based on their specialised pre-registration preparation which focuses on the three main areas of operating department practice: anaesthesia, surgery and recovery. The analysis in chapter 4 demonstrates how nurses have limited or no access to the operating department as part of their pre-registration studies, which impacts on the roles that they subsequently perform in theatre once qualified.

Since 2004, career progression through the Agenda for Change pay Bands is determined by role specification (Department of Health, 2004) and, increasingly, academic credentials are used as a screening mechanism for promotion. The research shows that some practitioners complete a specific degree-level module in mentorship to aid their transition from the entry-level Band 5 salary to Band 6. The transition from Band 6 to Bands 7 and 8 now requires a full degree according to the Band 8 interviewees. The result of this increasing use of academic credentials as a screening tool for promotion is that practitioners enrol at University to complete either single degree level modules, or a full degree pathway.

However, the Band 7 and 8 practitioners' career transitions are largely as a result of being in the right place at the right time, or serendipity (Strauss, 1962), and are not based on their possession of higher level qualifications. These practitioners possess a professional academic credential that is below the current professional entry level and their career transitions were unplanned. They found themselves in positions where they took on additional responsibilities or covered for senior colleagues during their absence, which allowed them to develop the experience they needed for their promotion. Although some of these practitioners have completed, or are completing credentialised study, their experience in the role is the key factor in their continued performance.

The process of professionalisation is critiqued in this study where the discourse presented in the literature review predominantly focuses on the meso-level profession as a whole. Here, the increase in academic credential to access the profession is a reflection of professional development and the legitimisation of the profession as an academic discipline. This discourse extends to provide insights into the potential benefits at the macro, organisational level, where increasing the academic credential for entry to the profession is expected to have a significant impact on the quality of patient care. The graduate professional's development of key academic characteristics (e.g. communication, problem solving, analysis) is used to internalise data relating to the patient's condition so that they can formulate a suitable plan of care.

However, within this discourse, there is no consideration of the impact at individual level on the current members of the profession.

This study provides evidence that some practitioners benchmark their current position against that of the newly qualified practitioners entering operating department practice. The notion of either prospective or retrospective benchmarking is introduced to explain this process. Prospective benchmarking takes place when an individual scans their environment and plans their development based on the new breed of professional entrants. Evidence is provided to show how some practitioners plan to increase their academic credentials to ensure they remain competitive for promotion.

In contrast to this, retrospective benchmarking is carried out by practitioners on higher grades, notably Band 7. Here, the practitioner looks at the criteria used for selection to their current post. As the use of credentialised academic awards for screening purposes increases, these practitioners feel that they have to develop to the required academic level to remain competitive and sustain their position in the organisation.

The final area of analysis for this question looks at working relationships in the operating department. Discourse around the move to graduate entry for nursing suggests that graduates are able to form more effective working relationships and their status and credibility is increased by possession of a degree (e.g. Nursing and Midwifery Council, 2010b). However, this study has found that seniority (in terms of years served in the role) is associated with greater knowledge. Therefore, senior members of the team are viewed as more qualified than junior members based on their greater experience in the role. This produces a hierarchical structure in the operating department where a junior team member's decisions are more likely to be questioned by senior colleagues. However, a senior member's actions may remain unchallenged due to their experiential status, which may have implications for patient care if junior members of the team feel they are unable to speak out about any concerns they may have.

The study goes on to demonstrate how working relationships are built experientially, where mutual trust and respect are built on an individual's ability to perform their role competently. Effective multi-disciplinary team working is being encouraged through the introduction of human factors training, which facilitates interaction and exchange between all members of the theatre team. This training brings together multi-disciplinary groups with an aim of reducing so called *never events* and enhancing team working in emergency situations. The training places multidisciplinary team members in a simulated or scenario-based situation which encourages every member of the team to communicate freely and effectively. The benefit of this is that all members of the team are confident to contribute equally to the care of the patient. Here then, working relationships are not built by possession of academic credentials, but rather on how the team member acts and interacts with others. This breeds trust and mutual respect which, in turn, could have a positive effect on patient care.

7.2.2 The benefits of investment in human capital development to the individual health care professional and the organisation

Chapter 5 examines the benefits of investment in human capital by investigating the post-registration, continuing professional development (CPD) activities of theatre practitioners, and the significance of credentialised study from the perspectives of professionalisation and organisational requirement. The professionalisation of nursing has ultimately led to the entry level credential increasing from diploma to degree and Operating Department Practitioners are pursuing a similar change in entry credential. Chapter 5 further develops the insights highlighted in chapter 4, focusing on the individual reactions to this policy of academicisation.

The analysis in chapter 5 shows that current registrants have a choice to make which relates to their professional entry-level credential. Those with a professional academic credential that matches that for current professional entry feel that there is little need for engagement with credentialised continuing professional development activities. Whereas if the professional academic level credential of the individual falls below that of the current level for professional

entry, the practitioners who participated in this study act in one of two ways. Some of these practitioners choose to continue as they are. All practitioners participating in this study are registered professionals who have an obligation to participate in and demonstrate their continuing professional development as a means for re-registration. These practitioners feel that, as long as their professional obligations are being met, and they continue to perform adequately in their role, there is no need for them to pursue a course of formal academic study.

Other practitioners choose to improve their professional entry level academic credential by engaging in credentialised continuing professional development. They do this by either retrospective or prospective benchmarking (introduced in the chapter 4 analysis). This provides the stimulus for them to work to achieve the new entry credential to maintain their competitiveness. Together with the findings presented in Chapter 4, this provides insight into how professionalisation occurs at an individual, micro-level of analysis.

Through their benchmarking activities, practitioners choosing to improve the level of their academic credentials are involved in an evolutionary process. In effect they are adapting to meet the new requirements for professional practice which reflects van Valen's *red queen hypothesis* (Easton, 2007). In essence, the efforts of these individuals places them no further forward than the new breed of health care professionals. The metaphor of *running fast to stand still* is used to explain this phase of professional updating, which moves those professionals engaged in this process further away from those who choose not to. According to van Valen's thesis, those who do not engage face the prospect of maladaptation and extinction (Easton, 2007).

The research findings also show how some practitioners clearly focus on the requirements for promotion which serves as a major determinant of their credentialised CPD activities (prospective benchmarking). However, the focus is on gaining the credential and not necessarily using the skills and knowledge developed as a result of their study. A common progression pathway noted by the research participants is the completion of one specific degree level module

in mentorship, which is used to support their progression from pay Band 5 to Band 6. This raises a potential secondary issue that may impact on the ability of the operating department to support student ODPs and student nurses.

The degree level mentorship module is designed to develop registered professionals in the support and assessment of students. A major part of a health professional's pre-registration training is completion of clinical competences which are assessed by a team of work-based mentors holding the degree level mentorship module. If this academic credential is used solely as a means of supporting promotion, there is a possibility that a relative shortage of mentors could be created. This would be characterised by a department where only a few mentors holding this credential are willing to participate in the support and development of students, even though, on paper, the number of mentors in a department appears sufficient.

The discourse surrounding the increase in academic credential for professional entry argues that the development of graduate characteristics is essential to support modern day healthcare (e.g. Cockayne, Davis and Kenyon, 2007). However, engaging practitioners holding antecedent professional awards in credentialised study is challenging and this study presents some reasons for non-engagement (see chapter 5, section 5.2.1). Since some practitioners would only consider participation in credentialised study if it fitted in with their interests outside of health care, it raises the question whether employers want employees to develop graduate characteristics *per se* or whether they need to be developed in the context of the professional role. For initial entry to the profession, the answer appears obvious: graduate characteristics need to be developed in the context of employment. However, for those currently registered professionals seeking to improve their academic credential the answer could be quite different. These practitioners already have the contextualised skills and knowledge, so what is to prevent them from developing their graduate characteristics in an unrelated area of study? The organisation would still benefit from these as the individual would transfer them naturally into their role. This is an area of continuing professional development that requires further investigation.

7.2.3 The influence of higher level qualifications on the working practices of health care professionals in the operating department

Some interesting findings were demonstrated by the analysis relating to the employability of newly qualified practitioners and the ongoing development of graduate characteristics. The analysis in chapter 6 suggests that most practitioners feel well prepared for their professional role in the operating department on completion of their pre-registration preparation, regardless of the academic level of their preparation. However, most managers feel that ODPs are better prepared than their nursing counterparts, despite the lower academic credential for professional entry to Operating Department Practice. When this was explored further it transpired that effective preparation for the role involved *contextualised experience* which was gained through clinical placements in the operating department during the pre-registration training period. During these placements, the student ODP or nurse applies their generic knowledge of health care related theory to a range of job (or placement) specific roles. The difference in the views of the managers towards ODP and nurse preparation lies in the contextual development of ODPs within the operating department environment, and the lack of access to theatre-based placements for nurses during their training period.

However, an interesting anomaly was noted as some nurse participants had very little, or no experience of theatres on qualification and subsequent employment in the operating department. These nurses had very little time during their training to develop their contextualised skills and knowledge which accounts for the reduced scope of practice of theatre nurses when compared to their ODP counterparts. These nurses receive their contextualised development during a period of preceptorship. This is a period of post-registration supervised practice, the purpose of which is to facilitate the transition from student to autonomous, accountable practitioner (Department of Health, 2010c). ODPs develop their contextualised skills and knowledge over the 2 years of their pre-registration diploma programme and the perception of survey and interview participants on pay Bands 6 – 8 is that they should hit the ground running and

be fit for practise from their first day post-qualification. Thus the preceptorship period for ODPs may be shortened to account for this.

The use of the preceptorship period by newly qualified nurses as a means of gaining contextualised experience suggests that health professionals' preparation for practice could be reviewed and amended. This would be particularly pertinent in light of the 2015 comprehensive spending review where the Chancellor of the Exchequer announced the withdrawal of the NHS bursary system for health care students (NHS Business Services Authority 2016b). Therefore, as a result of this study, a proposal is presented for change to the training of health care professionals, where the student undertakes a generic 3-year health sciences degree with an element of work-based experience. This would be followed by employment in the area of practice in which the individual wishes to work (e.g. the operating department), where they will receive contextualised development in the form of a foundation programme. This programme will allow the student to develop and demonstrate the competences required for the professional role which then becomes a requirement for their continuing registration.

The main aim on commencement of this study was to review human capital development against a backdrop of professionalisation. Following the debate in health care literature, one can trace the ongoing professionalisation of nursing and project this on to the Operating Department Practice profession. The move of these professions from hospital-based schools into higher education, followed by the move to degree-level entry are the final stages of the professionalisation process (Larson, 1977). The rationale for the move to graduate entry in nursing is based on improved quality of care for patients but the research evidence to support this is questionable. Participants in this study from both professional groups feel that a degree is not needed to perform their role in the operating department. This is not surprising as most of the participants are non-graduates. However, the participants do acknowledge that the demands of clinical practice are increasing and that a qualified practitioners' knowledge, problem-solving, communication and analysis skills (i.e. graduate

characteristics) need to be developed. The upskilling of those currently in post is occurring as new technologies or approaches to care evolve unnoticeably (in a similar way that technology is incorporated into everyday life, e.g. use of smart phones). However, for the student new to the profession, the enhanced practices have to be included in their professional preparation which serves as justification for the increase in professional entry-level credential to degree.

Increasing the entry level credential, though, comes with a price. The survey participants provided an unanticipated area for analysis which was followed up with the interviewees; that of the unintended consequences of professionalisation. The unintended consequences are categorised under two main themes: the consequences for the ODP professional should they fail to achieve graduate entry status; and the consequences for the future of the professions. The impact on the ODP profession of not achieving degree level entry is one associated with maladaptation. Here, following van Valen's red queen hypothesis (Easton, 2007) and applying this to the coevolution of professions, the profession loses its competitive edge and other established or emerging professions take on their role. The future of the professions relates to a perceived lack of quality entrants to professional preparation. There is anxiety that if there is an increase in the professional academic entry credential, that would require higher level credentials by applicants wishing to access professional training. There is also concern that future applicants, whose focus is merely on gaining the academic credential rather than the call to a vocation in caring, will be attracted to the health professions.

7.3 Recommendations for Policy and Practice

The findings from this study on human capital development in the operating department have resulted in the formulation of three recommendations for policy and practice which are discussed in detail below.

7.3.1 A review of health professions' preparation for their role in the operating department

The first recommendation for policy and practice suggests an amendment to the initial training of healthcare professionals. The recommendation stems from the analysis of empirical research into the effectiveness of the current pre-registration preparation of ODPs and nurses for their role in the operating department. It is evident from the research findings that contextualised experience is a major determinant in the preparation of health care professionals. There is also agreement amongst the research sample that their role in the operating department requires them to display graduate characteristics. However, there are differences in how the ODP and nurse students gain their contextualised experiences which has resulted in this recommendation.

With this in mind, a revised pre-registration preparation based on that of medicine or law would see healthcare students studying, initially, for a generic degree in health sciences. This would provide a strong foundation of the theory underpinning professional practice which would be supported by an element of practice-based learning. The context of the practice-based learning at this point is unimportant as the focus is on students developing the graduate characteristics that are becoming increasingly important in the delivery of high quality patient care.

On completion of the degree, students would seek employment in their chosen area of healthcare, such as the operating department. They would then undertake a two-year foundation programme where they would develop their contextualised skills and knowledge. This period would be supported by the completion of a number of role-specific competences, linked directly to professional and regulatory body standards, which would have to be achieved as a condition for continuing registration and regulation as a healthcare professional.

This recommendation is ambitious in that the current study is based on a small sample and this change would require a multi-agency approach. To move this forward, one would need to provide a compelling argument for change to the government, professional and regulatory bodies, and to employers. A further obstacle with this proposal is the potential loss of professional identity of one, or both of the professional groups staffing the operating department, which may or may not be viewed as advantageous.

This study has highlighted fundamental differences in the preparation of two professional groups vying for employment in the same clinical area. At present, the situation is such that there is an abundance of jobs in the operating department due to occupational shortages of ODPs and theatre nurses. However, the analysis in Chapters 4 and 6 shows how nurses complete a 3-year degree programme and then go on to a further 12 months of preceptorship to develop a narrower, yet more focused, scope of practice in terms of their role in the operating department. There may be a time in the future when employers scrutinise the preparation of their workforce more closely if the issues associated with the occupational shortages are ever addressed.

7.3.2 A review of the criteria for career progression for registered health care professionals

The second recommendation calls for a review of the use of academic credentials as essential criteria for career progression. This study demonstrates how academic credentials are increasingly used as a screening tool for promotion, and that some practitioners complete specific credentialised study as a means to aid their progression through a process of prospective benchmarking. This is particularly apparent for the transition from Band 5 to Band 6 where many practitioners complete a single degree level module in mentorship to provide evidence of their academic ability. The implications of this on the operating theatre as a learning environment are discussed in Chapter 5 and this has resulted in the development of this two-part recommendation.

First, screening credentials for progression through the salary Bands need to be reviewed, in particular, the criteria for progression from Band 5 to Band 6. The focus on the mentor module as a named progression credential should be reviewed and the criteria for progression widened to include any degree-level module. Second, the mentor module should be made available to those practitioners who want to support student development and assessment in the operating department only. Practitioners who undertake this module should then have their mentoring activities reviewed during their annual appraisal review.

Following on from this, a second aspect of this recommendation would be for employers to review how they support non-graduate registrants wishing to improve their academic credential. Although evidence is presented to demonstrate that practitioners complete CPD activities that link to their professional role, it also shows that practitioners consider their personal interest in the subject of study. If the overarching aim of gaining a degree level credential is to develop graduate characteristics, could this be completed in an area unrelated to the individual's professional role? For example, if one's interests lie in communications technology or art and design, completion of a graduate award in one of these areas would develop the same graduate characteristics as those developed by completing a health sciences degree, as all degrees are mapped to the same quality standards. This may create tensions around the funding provided to individuals to pursue personal and professional development, but the organisation may benefit from the transference of graduate characteristics into the work place.

7.3.3 A review of the utilisation of the theatre workforce

The final recommendation calls for a review of the utilisation of the theatre workforce. Analysis of the quantitative data collected in the survey demonstrates a variance in the scope of practice for ODPs and theatre nurses. This variance is created by the specific pre-registration pathways undertaken by these professional groups. Until a comprehensive review of the preparation of health care professional preparation is carried out, employers will need to carefully review their workforce needs, paying particular attention to the needs

of newly qualified ODPs and newly qualified nurses entering the operating department.

The shortage of registered health care professionals places additional pressure on operating departments to deliver their service. Therefore, workforce planners need to understand who provides this service and the mechanics of their professional preparation. It is clear from this study that ODPs and nurses have a role to play in caring for patients in the operating department. However, increasingly, student nurses' access to the operating department is being reduced due to the demands of their specialist preparation across a range of acute and primary care settings. The reduction of student nurses accessing theatre has a potential knock on effect on the number of newly qualified nurses recruited to the operating department. Therefore, the sensible option appears to be a greater investment in ODP preparation.

7.4 Original Contribution of this Research Study to the Field of Education

The rhetoric surrounding human capital development continues to be used as justification for participation in higher education (Department for Business Innovation and Skills, 2016). The current study examines this and presents human capital development in the context of the ongoing professionalisation of operating department practice. In doing so, this study fills the gap in knowledge in the field of education on three fronts.

First, is the reconceptualisation of human capital theory which is alluded to above. Second, is the investigation into the impact of increasing the academic level of the credential for professional entry on individual health care professionals, in particular those registrants holding antecedent professional awards. Here, an insight into professionalisation at micro-level is presented. Third, is the contribution to the workforce planning activities for the operating department. Here consideration of the benefits of the development of a specialised workforce may impact directly on the method of pre-registration

preparation of professionals wishing to enter the operating department. A further consideration lies with the utilisation and development of personnel currently employed in the operating department, which includes the health care support workforce. Each of these is discussed in detail below.

7.4.1 The reconceptualisation of human capital theory

This study demonstrates the influences on human capital development, both internal and external to the individual, and builds a model to demonstrate how they interact (figure 7.1).

Figure 7.1: The dimensions of human capital development including intrinsic and extrinsic factors

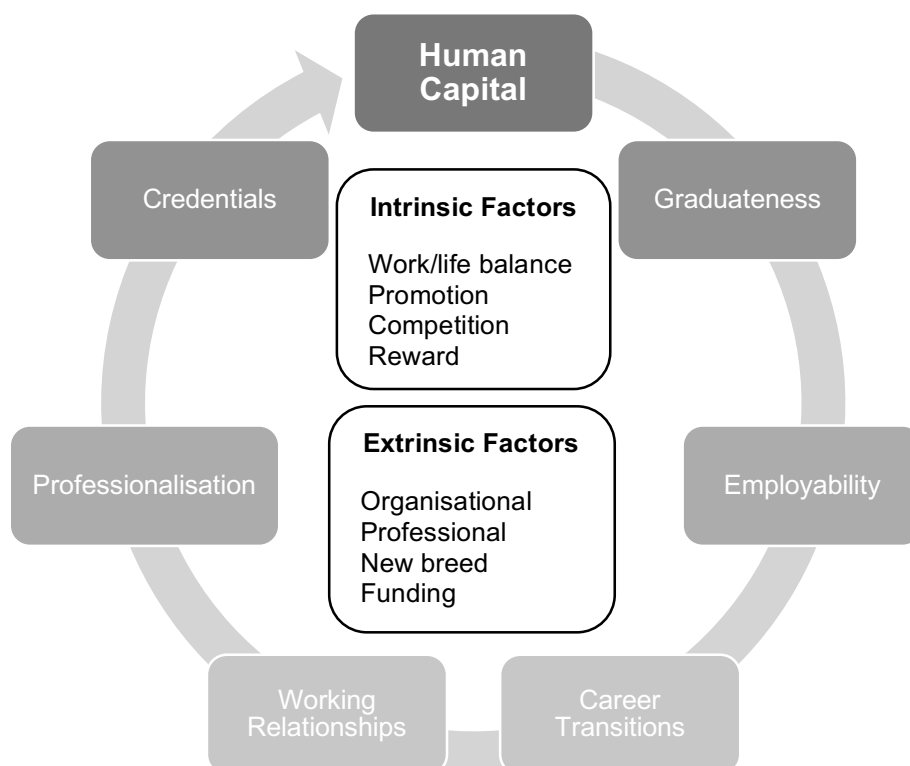


Figure 7.1 demonstrates the multiple dimensions associated with human capital development demonstrated in this study. The dimensions on the outer circle lead to human capital development, either individually, or in combination. For example, to access the professional roles in the operating department one has to meet the professional standards developed for the role by professional and regulatory bodies (professionalisation dimension) to gain employment as an

ODP or theatre nurse (employability dimension). New entrants to the profession are screened by their academic credential (i.e., they hold the threshold academic credential as a minimum). When employed in the operating department, working relationships are developed as a result of the individual's earlier human capital development, in that mutual trust and respect are developed by demonstrating one's ability to perform in their professional role (working relationships dimension). Individuals' career transitions are increasingly based on screening of academic credentials and the demonstration of higher level characteristics associated with graduateness.

A number of intrinsic and extrinsic factors are associated with human capital development. Screening credentials may be set by employers as a means of selecting their workforce, and professional and regulatory bodies may set the entry level credentials for their profession. These factors, which are external to the individual, serve as a stimulus for professional development and engagement in credentialised study. This study also shows that maintaining one's position in the workforce when a new breed of practitioners enter with higher level credentials serves as a stimulus for academic development.

The intrinsic factors come into play when the individual has internalised the implications of external factors on their current position in the workforce. In terms of individual professional development, this may trigger an internal motivation to better their credential to either remain competitive or seek promotion directly. Some practitioners decide that participation in credentialised continuing professional development activities is not a route they will take, some basing their decision on the lack of reward at the end of their studies as shown in chapter 5.

Thus a revised conceptualisation of human capital is presented that takes full consideration of both organisational and individual perspectives. Becker's fundamental premise is still evident as the stimulus for many participants in this study is career progression which is associated with a higher salary. Individuals enter the ODP and nursing professions as a career turning point. They then go on to develop further by gaining academic credentials to enhance their

prospects of promotion. Underpinning this progression is the positive correlation between years in education and salary.

7.4.2 The insight into micro-level professionalisation

The study provides insight into micro-level professionalisation in the form of perceptions of individual professionals to professional evolution. Here the *running fast to stand still* metaphor of the red queen hypothesis is used as a theoretical basis to analyse how individuals adapt to the changes in, in the case of this study, entry-level credentials. Individuals utilise benchmarking strategies to identify their current position within the profession in relation to the new breed of professionals and determine their individual course of action accordingly. To remain competitive, practitioners embark on a pathway aimed at improving their academic credential to the same level as the new entrants to the profession and therefore appear to be working hard (running fast) to be at the same academic level as the new breed (to stand still).

When analysing the coevolution of two professional groups in the same area of practice, two themes emerge. First is an inter-professional competition where professional groups performing similar roles compete for ascendancy and monopolisation of service delivery. Here the fear is maladaptation which manifests itself as the possible extinction of a professional group. Second is an intra-professional competition where the new breed has evolved in terms of their academic credential. This serves as a stimulus for other members of the same profession to develop to the same level.

In both examples cited above, professional and personal development is the key to the survival of the species. Therefore, either individual or organisational investment in developing human capital is essential to underpin the process of, in this case, professional development. Unlike Becker's (1993) original conceptualisation of human capital theory, the focus moves from the organisation to the professional groups delivering the service. The current study demonstrates how two professional groups delivering a common service, respond when there are changes to the academic entry level of one of the groups. However, at the centre of these developments are the individual

practitioners who must make choices about their role and future career. As the current study demonstrates, some will not act. However, the study also shows how individuals invest in developing their human capital to remain competitive with the new breed of worker entering the profession. Thus, a key finding of this study is the link between human capital development and the red queen hypothesis, refocusing theories devised to explain organisational behaviour (presented in section 2.6.2, p. 67) on to the individual worker.

7.4.3 Preparation and utilisation of professionals in the operating department

The study raises questions about the preparation and utilisation of Operating Department Practitioners and theatre nurses. The quantitative data collected in the survey shows a variance in the roles performed by ODPs and nurses which reflects their contextualised experiences during their professional preparation period. The significance of the preceptorship period to support the transition from student to autonomous, accountable practitioner is also investigated. The result is an analysis of professional preparation which is aimed at stimulating discussion and debate at a time when significant review of this is required. The outcome of the government's comprehensive spending review in 2015, and the associated withdrawal of the financial support package for health care students (NHS Business Services Authority, 2016b) will impact on the training of health professionals from September 2017. This study calls for a review of pre-registration professional preparation and presents an alternative model to this process based on that used in medicine and law.

7.5 Reflexivity and the Research Process

According to Probst (2015) reflexivity is an essential aspect of qualitative research as a means of supporting the trustworthiness of constructions based on subjective and intersubjective processes such as conducting and interpreting interviews. As this mixed-methods study involves a substantive element of qualitative research, this section will take a reflexive view of the project to analyse how the subjectivities and intersubjectivities of the researcher and the researched have shaped the study. In doing so the strengths and limitations of

the study will be examined, before moving on to identify areas for future research.

7.5.1 The basis of the current research project

The stimulus for the investigation into human capital development in the operating department came from the policy change in nursing and their pursuit of graduate entry. As discussed throughout this study, this was promptly followed by a similar policy change in Operating Department Practice. Although discourse supporting this change focused on service delivery and improvements in the standards of patient care, educational policy still reflected New Labour's education for all, linking education to a high skills economy and higher earnings. The pursuit of graduate entry to the health professions was clearly congruent with educational policy, and served the ongoing professionalisation agenda of nursing and ODP through their legitimisation as academic disciplines. However, it was the informal discussions with many, mainly ODP, colleagues that led to the formulation of this study. ODPs feared being left behind by their nursing counterparts, but appeared resistant to the changes in professional education policy. Indeed, in the ODP profession, the educational policy change to support degree-level entry to the profession was instigated by members of the professional body (College of Operating Department Practitioners) who were primarily based in higher education.

The current study was developed as a means of understanding the impact of policy change at practitioner level. Also, as a secondary investigation into workforce planning in the operating department, workforce shortages in the operating department were identified, with no clear means of redress. It became apparent that this was due to the lack of differentiation between the roles and responsibilities of the ODP and nursing professions in the operating department. Therefore, two potential studies were merged to form one larger study to examine the working practices of operating department staff, alongside the impact of the pursuit of graduate entry on practitioners.

One of the overriding features of this study is the management of researcher bias. The researcher is a registered Operating Department Practitioner based in higher education. Over a 30-year career in this profession, presuppositions

have been developed surrounding the benefits of training professionals for a specific area of professional practice and these were challenged throughout the research design, data collection and analysis phases of the study. In particular, the discovery that some professionals have very little, or no experience of the operating department prior to their employment there was particularly uncomfortable. True and accurate reporting of the data allowed this discomfort to be overcome and provided new insights into the value of the preceptorship period in the development of contextualised skills and knowledge.

Furthermore, one had to overcome the professional biases of the ODP and nurse participants in this study. Each participant has developed in their own specific profession and is influenced by the professional agenda of their group. These biases are reflected in the way research participants respond to the phenomenon under investigation and structure their answers to both survey and interview questions. The coming together of the interpretations of the researcher and the researched, to develop an understanding of the impact of phenomena, aligns with May and Berry's (2011) referential reflexivity, where consideration has to be given to the individual's position in society and the influence of this on the constructions made about their experiences. A further issue with the interviews is the status of the interviewer/researcher. The researcher is known to the interview population and the potential for respondent bias is introduced, where the interviewee provides the response that they think the interviewer wants to hear.

These issues were addressed in the data collection and analysis stages of the study. The survey was completed anonymously and it was anticipated that the anonymity of the respondents would allow them to provide responses that reflected their true perceptions. The effect of this was minimised in the interviews by allowing the interviewee to talk without interruption. A noticeable feature of the interviews was the potential for the interviewee to contradict themselves. Allowing individuals to talk through this provided an alternative perspective which, when analysed with the rest of the qualitative data supported the interviewees feelings and perception of the topic under discussion.

7.5.2 Strengths and limitations of the research design

The combination of issues surrounding workforce practices and the impact of increasing the academic credential for professional entry led naturally to a mixed-methods approach. It was clear from the outset of the project that quantitative data would be required to demonstrate the workforce issues and in-depth narrative would allow the examination of the impact of graduate entry to the health professions. Adopting a mixed-methods design also provided an opportunity for one data set to be used to complement and corroborate the other, thereby adding depth and richness to the research findings.

The limitations of this study relate directly to the small sample size. It was anticipated that the relationship built between the researcher and operating department personnel in the selected geographical area over many years would be beneficial in recruiting the research sample. Although 150 questionnaires were distributed, the response rate was only 40% despite the implementation of a strategy for following up on non-respondents. The paper-based survey produced a greater response rate than the on-line survey as the respondents completing the paper version were, in effect, a captive audience; they were given time by their manager to meet to discuss the project and complete the survey. Those that agreed to complete the on-line survey or took the paper-based version away to complete later were generally non-completers. A secondary issue with the paper-based survey is that it appeared very long and difficult to navigate. The size of the document may have been a deterrent to some potential participants. However, shortening the questionnaire would not have allowed a full exploration of the issues under investigation.

The survey sample was dominated by ODPs which is not representative of the ratio of ODPs to nurses in the operating departments studied. However, due to time constraints, a decision was made to use the data collected and to adjust the comparisons of ODP and nurse responses by using percentages as a reflection of the proportion of responses for each professional group. In contrast, the management of the interview strand of data collection was more

straight-forward by selecting a stratified purposive sample. The data collected through the interviews provided richness and detail and provided the axis around which the data analysis developed. As such the project leaned towards a qualitative methodology which was not the original intention.

The strengths of the project lie in the relevance of the findings to the ODP and nursing professions staffing the operating theatre. The originality of the project in collecting and analysing data directly related to the roles and participation in credentialised study provides an insight into the impact of the introduction of graduate entry in nursing, and the potential introduction of graduate entry to operating department practice.

7.5.3 Areas for further study

The small sample size makes generalisation of the research findings inappropriate. However, it is hoped that the findings fuel discussion and debate and serve as a stimulus for further research around the continuing professionalisation of the health professions, in particular the impact of increasing the entry level academic credential for access to the profession. Following on from this study, there are three main areas that require further investigation.

First, this project needs to be refined and conducted with a larger sample group. Broadening the range of practitioners participating in the study will generate a much clearer picture of the roles & responsibilities of the theatre workforce and how they use academic credentials to support their post-registration development. This will aid, not only with workforce planning, but also to support practitioners who wish to improve their academic credentials to remain competitive for promotion. Leading on from this, a wider study will also allow the influences determining participation in formal academic study to be investigated. The current study indicates that practitioners may wish to develop graduate characteristics outside of their professional role and, if this is supported from a wider investigation, a revised approach to continuing professional development can be formulated for consultation.

Second, an in-depth study of how professionals gain their contextualised experiences will also inform the future of pre-registration professional preparation. The use of the preceptorship period to gain this experience has guided a recommendation for review of the whole pre-registration process. However, to engage stakeholders to conduct such a review will require a more persuasive body of evidence.

The third area for further study surrounds the red queen hypothesis. The current study has identified this as an emergent theory supporting the use of formalised academic study by ODPs and nurses currently registered with the HCPC and NMC respectively. The findings of this study are that practitioners undertake a process of prospective or retrospective benchmarking to gauge their current position against a new breed of graduate entrants and manage their CPD activities accordingly. Research focused specifically on this aspect of professionalisation will help to develop the theory to gain further insight into how individual professionals respond to and drive the professionalisation process.

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Appendix 1: On-line Survey / Paper-based Questionnaire⁹

Academic Qualifications and Working in the Operating Department

Thank you for agreeing to participate in this study. Please answer the following questions as fully and accurately as you can. Please note that all data generated will be treated in the strictest confidence.

Section 1: Your Current Role

1. Which professional group do you belong to (this will be reflected in your professional registration with either the NMC or HCPC)?

ODP ☐

Nurse ☐

2. Which one of the following best describes your role?

Theatre Practitioner (ODP or Nurse) ☐

Senior Practitioner (ODP or Nurse) ☐

Advanced Scrub Practitioner ☐

Team Leader ☐

Practice/Clinical Educator ☐

Theatre Manager ☐

Other. Please specify in space below ☐

Please specify other here

⁹ Please note that the format of this questionnaire has been amended to comply with the pagination requirements for presentation of PhD theses. Free text boxes were larger in the original to encourage respondents to provide a detailed account of their thoughts.

3. How long have you been qualified as a nurse or ODP?

- Less than 1 year ☐
- 1 – 3 years ☐
- 4 – 6 years ☐
- 7 – 9 years ☐
- 10 years or longer ☐

4. Which one of the following ranges does your basic salary fall into (i.e. salary without overtime or enhanced payments)?

Band 5: £21,176 – £22,676 ☐

Band 5: £23,589 – 25,528 ☐

Band 5: £26,556 – 27,625 ☐

Band 6: £25,528 - £27,625 ☐

Band 6: £26,470 - £30,460 ☐

Band 6: £31,454 - £34,189 ☐

Band 7: £30,460 - £32,573 ☐

Band 7: £34,189 - £36,303 ☐

Band 7: £35,545 - £40,157 ☐

Band 8A: £38,851 - £41,772 ☐

Band 8A: £43,388 – 46,621 ☐

Band 8B: £45,254 - £48,983 ☐

Band 8B: £51,718 - £55,945 ☐

Band 8C: £54,454 - £58,431 ☐

Band 8C: £61,167 - £67,134 ☐

Band 8D: £65,270 – 69,932 ☐

Band 8D: £73,351 - £80,810 ☐

5. This questions relates to the role. For each of the roles identified below, indicate on the scale how often you perform this role

	Always (this is my primary role)	Regularly (I act in this role on a regular basis, e.g. weekly)	Sometimes (I may be called upon to perform this role but not often)	Never
Anaesthetics				
Scrub				
Circulating				
Recovery				
First assistant to the surgeon				
Cardiac arrest team				
ITU/HDU (includes transfer of patients from theatre to ITU)				
A&E/Trauma Team				
Emergency transfer of patients to other hospitals				

6. Do you currently work

Full-time? ☐

Part-time? ☐

7. Have you ever taken a career break from your current role? This includes maternity leave, sabbatical – time taken out of your role to pursue other activities. This does not include time out due to illness.

Yes ☐ Please answer question 8

No ☐ Please move to section 2, question 9

8. What was the length of your career break?

Less than 3 months ☐

3 – 5 months ☐

6 – 8 months ☐

9 – 11 months ☐

12 – 14 months ☐

15 – 17 months ☐

18 – 20 months ☐

21 – 23 months ☐

24 months or more ☐

Section 2: Your Current Qualifications

- 9. What is the academic level assigned to your professional qualification (i.e. the qualification that allows you to register as an ODP or a nurse)?**

- | | |
|------------------------------|--------------------------|
| City & Guilds 752 | <input type="checkbox"/> |
| NVQ Level 3 | <input type="checkbox"/> |
| Certificate | <input type="checkbox"/> |
| Diploma | <input type="checkbox"/> |
| Degree | <input type="checkbox"/> |
| Don't know | <input type="checkbox"/> |
| Other (please specify below) | <input type="checkbox"/> |

Please specify other here

- 10. Think back to your ODP/nurse training. How well were you prepared for your role in the operating department (i.e. were you able to participate fully in the work of the department immediately)?**

- | | |
|-----------------|---|
| Well prepared | <input type="checkbox"/> please move to question 11 |
| Poorly prepared | <input type="checkbox"/> please move to question 12 |

- 11. You indicated that you thought you were well prepared for your role in the operating department on completion of your pre-registration training. What were the features of your pre-registration award that prepared you for your professional role in the operating department?**

Please move to question 13

- 12. You indicated that you thought you were poorly prepared for your role in the operating department on completion of your pre-registration training. What could/should have been included in your pre-registration award to better prepare you for your role in the operating department?**

Please move to question 13

13. What is your highest level of qualification? This may be your professional qualification, something you have completed since qualification or a qualification completed prior to your career in health.

- | | |
|------------------------------|--------------------------|
| City & Guilds | <input type="checkbox"/> |
| NVQ Level 3 | <input type="checkbox"/> |
| Certificate | <input type="checkbox"/> |
| Diploma | <input type="checkbox"/> |
| Ordinary/Honours Degree | <input type="checkbox"/> |
| Post-graduate Certificate | <input type="checkbox"/> |
| Post-graduate Diploma | <input type="checkbox"/> |
| Masters Degree | <input type="checkbox"/> |
| PhD | <input type="checkbox"/> |
| Other (please specify below) | <input type="checkbox"/> |

Please specify other here

14. Since qualification as a health care professional, have you participated in any form of continuing professional development leading to a qualification awarded by a higher education institution?

- | | |
|------------|---|
| Yes | <input type="checkbox"/> Please go to question 15 |
| No | <input type="checkbox"/> Please go to question 16 |
| Don't Know | <input type="checkbox"/> Please go to question 16 |

15. What academic level are you studying at?

- | | |
|------------------------------|---|
| Ordinary/Honours Degree | <input type="checkbox"/> Please go to question 18 |
| Post-graduate certificate | <input type="checkbox"/> Please go to question 18 |
| Post-graduate Diploma | <input type="checkbox"/> Please go to question 18 |
| Masters Degree | <input type="checkbox"/> Please go to question 18 |
| Doctorate (PhD) | <input type="checkbox"/> Please go to question 18 |
| Other (Please specify below) | <input type="checkbox"/> Please go to question 18 |

Please specify other here

16. Do you plan to participate in any form of continuing professional development leading to a qualification awarded by a higher education institution in the next 12 months?

- | | |
|------------|---|
| Yes | <input type="checkbox"/> Please go to question 17 |
| No | <input type="checkbox"/> Please go to question 20 |
| Don't know | <input type="checkbox"/> Please go to question 21 |

17. At which academic level do you plan to study?

- | | |
|---------------------------|---|
| Ordinary/Honours Degree | <input type="checkbox"/> Please go to question 19 |
| Post-graduate certificate | <input type="checkbox"/> Please go to question 19 |
| Post-graduate Diploma | <input type="checkbox"/> Please go to question 19 |
| Masters Degree | <input type="checkbox"/> Please go to question 19 |
| Doctorate (PhD) | <input type="checkbox"/> Please go to question 19 |
| Don't know | <input type="checkbox"/> Please go to question 21 |

18. Did you enrol/are you enrolled on:

One specific module (e.g. mentorship)? ☐ Please go to question 19

Award Pathway (e.g. BSc, MSc)? ☐ Please go to question 19

Don't know? ☐ Please go to question 19

19. What factors influenced your choice of study? Rank the factors identified below in order of their importance to you using 7 for the most important through to 1 for the least important factor.

Enter your ranking figure in the box

Area of personal interest

Organisational need

Career development/promotion

Expectation of employer

Professional requirement

Extend my scope of practice

Higher remuneration

Please move to question 21

20. What is the reason for not getting involved in continuing professional development activities leading to a qualification awarded by a higher education institution?

Section 3: Preparation for Clinical Practice

21. Thinking about the training you undertook for your professional qualification, what impact did your training have on your ability to perform your role in the operating department? Respond to the following statements by indicating your level of agreement on the scale. Each statement is prefixed by 'My professional qualification ...'

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
... was suitable preparation for my overall role in the operating department					
... provided the level of understanding and knowledge I needed to perform my role					
... allowed me to develop the problem-solving skills I needed for clinical practice					
... developed skills in the collection and interpretation of data to allow me to formulate judgements about patient care					
... encouraged a reflective approach to clinical practice					

Continued . . .

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
. . . developed my communication skills so that I am confident in communicating my ideas to specialist and non-specialist audiences					
. . . made me aware of the importance of continuing professional development					
. . . provided a suitable range of experiences that allowed me to settle quickly into my role as a qualified practitioner in the operating department					

22. You may be aware that nursing has moved to graduate entry and the ODP profession aspires to graduate entry. How do you think that graduate entry to these professions will impact on the role of the ODP/theatre nurse?

23. How do you think the possible move to graduate entry in ODP and the move to graduate entry in nursing will impact on your role in the operating department?

Questions 24 - 27 are for practitioners who identified themselves as Senior Practitioner, Advance Scrub Practitioner, Team Leader, Practice/Clinical Educator or Theatre Manager.

If you do not fall into any of these categories please move to Section 4, question 28.

If you do fall into these categories please answer the following questions as instructed.

24. In your role as Senior Practitioner/Advanced Scrub Practitioner/Team Leader, you may be involved in the induction of newly qualified ODPs and nurses in the operating department. How well prepared are these newly qualified ODPs and nurses for their role in the department?

Well Prepared

Poorly Prepared

ODPs ☐ Please move to question 28 ☐ Please move to question 26

Nurses ☐ Please move to question 28 ☐ Please move to question 27

25. In your role as *Practice/Clinical Educator/Theatre Manager*, you may be involved in the recruitment of newly qualified ODPs and nurses in the operating department. How well prepared are these newly qualified ODPs and nurses for their role in the department?

Well Prepared

Poorly Prepared

ODPs ☐ Please move to question 28 ☐ Please move to question 26

Nurses ☐ Please move to question 28 ☐ Please move to question 27

26. You indicated that you feel that newly qualified ODPs are poorly prepared for the role in the department. What do you think needs to be included in the ODP training programme to ensure that newly qualified ODPs are well prepared for their role in the operating department?

27. You indicated that you feel that newly qualified nurses are poorly prepared for their role in the department. What do you think needs to be included in the nurse training programme to ensure that newly qualified nurses are well prepared for their role in the operating department?

Section 4: Study at Degree Level

28. Many practitioners complete continuing professional development activities at degree or higher degree level. Identify your level of agreement with each of the statements below using the scale provided.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Studying at degree level will allow me to enhance my clinical skills.					
Studying at degree level will develop the way I think about patient care, making me more responsive to patient needs.					
Studying at degree level will develop my communication skills.					
Studying at degree level is a necessary part of my continuing professional development.					

Continued . . .

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Degree level study will allow me to develop my leadership skills.					
I will earn more money if I complete a degree.					
Employers look at applicants' academic qualifications so completing a degree will be advantageous if I apply for another job in health care.					
I need a degree to improve my chances of promotion.					
Having a degree will not impact on my ability to perform my role in the operating department.					

Continued . . .

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Degree level study improves patient care.					
Holding a degree increases professional status and credibility.					

29. In your opinion, what are the benefits of studying at degree level for your clinical practice? Please explain your answer as fully as possible to include a rationale for your answer.

30. How do you think graduate entry to ODP and nursing will influence relationship with other professional groups (e.g. medicine, radiography)?

Section 5: Degree Level Entry to the Health Professions

31. The NMC and CDP have launched degree level curricula for the nursing and ODP professions. What are your feelings about this development? Identify your level of agreement with each of the statements below using the scale provided.

	Strongly Disagree	Disagree	Neither Disagree of Agree	Agree	Strongly Agree
Degree level professional entry will enhance professional status					
Professionals who do not hold a degree will be placed under pressure to complete one					
A degree is not required to perform the role of ODP/nurse in the operating department					
ODPs/nurses holding a degree are more employable					
Practitioners holding a degree will not want to perform lower level tasks such as cleaning and stocking theatres					
Introduction of graduate entry to ODP/nursing will result in a two-tier system, with graduates taking on supervisory/managerial roles					

Continued . . .

	Strongly Disagree	Disagree	Neither Disagree of Agree	Agree	Strongly Agree
Moving to degree level is necessary if ODPs/nurses are to work in partnership with other health professions such as medicine					
As ODP and nurse education is delivered in a University setting there is an expectation that the entry-level qualification would move to degree					

32. Additional comments. Please use the text box below to record any additional comments you wish to make on the impact of higher level qualifications (i.e. degree level or higher) on the role of the ODP/nurse in the operating department

Thank you for giving your time to contribute to this study.

Appendix 2: Interview Schedule

Interview Schedule

Thank you for agreeing to interview. 30 minutes max.

Anonymity – use of anonymised verbatim quotation in study

Agreement to record interview

Profile/Census Information

Professional group

Current job title

Years of NHS service

Years of service in profession

Salary Band

Professional qualification

Highest academic award – completed pre- or post-professional qualification

Professional Preparation

How well prepared for role in operating department on completion of professional preparation?

- Follow up on response – why?

Bands 6 – 8 only: How well prepared are the current ODPs/nurses employed in your department?

- Follow up on response – why?

Graduate Entry

Impact for nurses/potential impact for ODP?

Survey data – gradueness developed through pre-reg preparation. Should this be rewarded with the academic credential?

- Follow up – why?

Personal Development

Bands 6 – 8: How did you get to your position in the workforce?

What role have academic credentials played in this?

Expectation that non-graduates will have to complete a degree

Band 5: How do you plan to progress?

What role will academic credentials play in this?

Expectation that non-graduates will have to complete a degree

Professional Relationships

Graduates in a better position to develop professional relationships?

- Status of graduate?
- Follow up – why?

Thank participant for their time

Appendix 3: Participant Information Sheet

Survey

Dear Colleague

You are in a unique position to participate in a research project investigating the impact of academic qualifications on your work in the operating department.

What is the project about?

An investigation into the role of academic qualifications in influencing the clinical role and career trajectory of Operating Department Practitioners (ODPs) and theatre nurses designed to answer the following questions:

1. What is the relationship between the professional's highest academic qualification and their position in the theatre workforce?
2. How does investment in human capital development benefit the individual health care professional and the organisation?
3. How does the attainment of higher level qualifications influence the working practices of health care professionals in the operating department?

Who is the research for?

The research will be submitted for my PhD in Education. I also aim to publish my findings in national journals as a contribution to the debate on rising academic qualifications in health care.

What will I have to do?

Give 30 minutes of your time to complete an on-line survey. The survey will require you to submit detail relating to your position in the operating department workforce, your salary band and will explore the level of qualification for your pre-registration and post-registration awards. Please note that you do not have to participate in this project, but your completion of the survey will be taken as your consent to use the data provided.

What will happen to the information collected?

The survey is completed anonymously and, although I will be quoting directly from the open-ended questions in my final project, the quotations cannot be attributed to any one individual. All data will be stored in accordance with the Data Protection Act (1998) and the project is conducted in accordance with the British Educational Research Association's Ethical Guidelines for Educational Research (see <http://www.bera.ac.uk>).

How do I participate?

Contact Rob Corbett – r.p.corbett@staffs.ac.uk – and provide me with a contact email address.

Interview

Dear Colleague

You are in a unique position to participate in a research project investigating the impact of academic qualifications on your work in the operating department.

What is the project about?

An investigation into the role of academic qualifications in influencing the clinical role and career trajectory of Operating Department Practitioners (ODPs) and theatre nurses designed to answer the following questions:

1. What is the relationship between the professional's highest academic qualification and their position in the theatre workforce?
2. How does investment in human capital development benefit the individual health care professional and the organisation?
3. How does the attainment of higher level qualifications influence the working practices of health care professionals in the operating department?

Who is the research for?

The research will be submitted for my PhD in Education. I also aim to publish my findings in national journals as a contribution to the debate on rising academic qualifications in health care.

What will I have to do?

Give a maximum of 45 minutes of your time to participate in an interview. During the interview your position in the operating department workforce and the level of qualification for your pre-registration and any post-registration awards will be explored along with your thoughts on graduate entry to the health professions. The interview will be tape recorded to ensure that an accurate transcript of the discussion can be made.

Please note that you do not have to participate in this project, but your attendance at the interview will be taken as your consent to participate in the study. **Also note** that you can withdraw from this project at any time and any data provided by you will be erased.

What will happen to the information collected?

I will be quoting directly from your interview in my final project. However, any quotations will be anonymised (e.g. Interviewee 1 stated . . .) and cannot be attributed to any one individual. All data will be stored in accordance with the Data Protection Act (1998) and the project is conducted in accordance with the British Educational Research Association's Ethical Guidelines for Educational Research (see <http://www.bera.ac.uk>).

Further Information

Contact Rob Corbett – r.p.corbett@staffs.ac.uk