AN ETHNOGRAPHIC STUDY OF THE CULTURE IN A DIAGNOSTIC IMAGING DEPARTMENT.

RUTH M. STRUDWICK

School of Nursing and Midwifery, University of Salford, Salford, UK.

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Abstract.

Aim

The aim of this study was to explore the culture in a Diagnostic Imaging Department (DID) with the primary focus on Diagnostic Radiographers (DRs). The objectives were to describe the culture in a DID and highlight the current workplace cultural issues that face DRs, to explore how people learn to become a DR and how they become professionally socialised, and to observe and describe how DRs communicate and interact within the DID.

Method

An ethnographic approach was used and participant observation was carried out for a four month period in a DID in the East of England. Semi-structured interviews with ten key informants were carried out to explore further the issues uncovered by the observation.

Results

The data was analysed using thematic analysis and four overarching concepts were identified.

- Relationships with patients
- Relationships with colleagues
- Structure and environment
- Characterising the role of the DR

DRs exhibit resistance to change; and ambivalence to research, continuing professional development (CPD) and evidence-based-practice. Domination by the medical profession remains and affects the culture. DRs continue to conform to accepted behaviour; this is passed on through role modelling. They make a rapid assessment of patients in order to deal with them; they

tend not to become involved with patients emotionally; exercising professional detachment. Team working evidently plays an important role in the DID.

Conclusion

The results of this study help to describe the complex nature of the culture in the DID. The DID is a task-focussed environment where efficiency is important, as a result patient care and quality of service may suffer. DRs need to be more pro-active in promoting and developing their profession.

Recommendations

Further research is recommended into patient care skills, the level of or need for emotional intelligence, coping strategies used and the process of professional socialisation.

Glossary

Accident and Emergency department (A&E) - A medical treatment facility, specialising in acute care of patients who present without prior appointment, either by their own means or by ambulance. The A&E department is usually found in a hospital or other primary care centre.

Accident and Emergency X-ray – The X-ray room located in the A&E department.

Allied health professions (AHPs) - Clinical and administrative health care professions distinct from medicine, dentistry, and nursing. Allied health professionals make up 60% of the total health workforce. Diagnostic radiographers are AHPs.

Agenda for Change (AfC) – A restructure of the pay and conditions for all NHS workers that put them onto a single pay spine which occurred during the early 2000s.

Biopsy - A medical test involving the removal of cells or tissues for examination. It is the medical removal of tissue from a living subject to determine the presence or extent of a disease. Biopsies are often carried out in the Diagnostic Imaging Department using imaging to localise the biopsy site.

Breast screening – X-ray imaging of the breast as part of the National Breast Screening programme.

C-arm An X-ray image intensifier which uses X-rays and produces a live image feed which is displayed on a TV screen. Normally used in the operating theatre to produce live images during surgery.

Canulla - a tube that can be inserted into the body, often for the delivery or removal of fluid through blood vessels.

Cardiac arrest - the cessation of normal circulation of the blood due to failure of the heart to contract effectively.

Cerebro-vascular accident (CVA) – Or a stroke. The rapidly developing loss of brain function(s) due to disturbance in the blood supply to the brain, caused by a blocked or burst blood vessel. This can be due to ischaemia (lack of blood flow) caused by blockage (thrombosis or arterial embolism) or due to a haemorrhage (leakage of blood).

Cervical collar - An orthopaedic piece of medical equipment used to support the cervical portion of a patient's spinal cord, and their head. It is also used by emergency medical services personnel for victims of traumatic head or neck injuries.

Clinical history – Clinical information about the patient.

College of Radiographers (CoR) The charitable subsidiary of the Society of Radiographers. The College's objectives are directed towards education, research and other activities in support of the science and practice of radiography.

Computed Radiography (CR) – Radiography that generally involves the use of a cassette that houses the imaging plate (IP) made of photostimulable phosphor. The image that is taken is transferred onto the computer system to be viewed.

Computed Tomography (CT) – An imaging technique that uses X-rays to produce cross-sectional images of the body.

Continuing professional development (CPD) – All professionals need to maintain their competency, CPD is a means by which professionals can do this from attendance at courses through to reading articles and reflecting on practice. Most healthcare professionals are required to maintain a CPD portfolio.

Diagnostic image – The resultant image (picture) from the examination which provides a diagnosis. Also called the radiographic image.

Diagnostic Imaging Department (DID) The department in the hospital where all of the radiographic imaging takes place (X-ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Breast Screening and Radio Nuclide Imaging (RNI)).

Diagnostic Radiographer (DR) – An allied health professional trained to undertake diagnostic imaging procedures such as X-ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Breast Screening and Radio Nuclide Imaging (RNI). Training is at undergraduate level and lasts for 3 years.

Direct digital radiography (DDR) DDR typically captures the image of the patient directly onto a flat panel detector without the use of a cassette. This image is transferred onto the computer system to be viewed.

District General Hospital (DGH) – A local hospital set up to deal with many kinds of disease and injury, with an A&E department to deal with immediate and urgent threats to health. A DGH typically is the major health care facility in its region.

Fluoroscopy - An imaging technique use to obtain real-time moving images of the internal structures of a patient through an X-ray image intensifier and video camera allowing the images to be recorded and played on a monitor.

Foundation status – An NHS foundation trust is an NHS trust that is part of the National Health Service in England and has gained a degree of independence from the Department of Health and local NHS strategic health authority

Four-tier structure – The structure within allied health professions where there are assistant practitioners (normally AfC band three or four), practitioners (bands five and six), advanced practitioners (band seven) and consultant practitioners (band eight).

Gastro-intestinal (GI) radiography examinations – Radiographic imaging examinations of the GI tract.

General X-ray – The main part of the DID where plain radiographic images are carried out.

Health Professions Council (HPC) The Health Professions Council (HPC) is a UK health regulator. It was set up by the UK government through the Health Professions Order 2001. Its stated purpose is to protect the public. It aims to do this by setting and maintaining standards of proficiency and conduct for the professions it regulates. It currently regulates fourteen professions including Diagnostic Radiography.

Ionising Radiation (Medical Exposure) Regulations 2000 (IR(ME)R 2000) The Ionising Radiation (Medical Exposure) Regulations 2000, (IR(ME)R 2000) came into force on 13th May 2000 to implement the European Directive 97/43/Euratom (The Medical Exposures Directive). Regulations to protect patients when carrying out radiographic examinations using ionising radiation.

Image receptor – The cassette or flat panel detector which is placed in contact with the patient to capture the radiographic image.

Imaging assistant – A support worker who assists the DRs and radiologists with radiographic examinations.

Imaging modalities – Different methods of imaging the body, for example CT and MRI are different imaging modalities.

In patient – A patient who has been admitted to hospital and has been allocated a bed.

Intensive Therapy or Treatment Unit (ITU) - Specialised department/ward in the hospital that provides intensive care medicine.

Interprofessional learning (IPL) – Where people from different professional groups learn with, from and about one another.

Likert scale - a psychometric scale commonly used in questionnaires, and is the most widely used scale in survey research. When responding to a Likert questionnaire item, respondents specify their level of agreement to a statement.

Magnetic Resonance Imaging (MRI) – An imaging modality that uses magnetism to produce cross-sectional images of the body.

Mobile radiography – Radiography carried out with a mobile X-ray machine outside of the DID.

Mobile (X-ray machine) – A mobile X-ray tube that can be used to carry out radiography outside the DID, for example on one of the wards or in the operating theatre.

Multi-disciplinary – Involving two or more different professional groups.

Obesity - A medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. Body mass index (BMI), a measurement which compares weight and height, defines people as overweight (pre-obese) when their BMI is between 25 kg/m^2 and 30 kg/m^2, and obese when it is greater than 30 kg/m^2.

Occupational health department – The department in an organisation concerned with protecting the safety, health and welfare of people engaged in work or employment.

On-call – A phrase used by DRs to refer to the DR working out of hours or overnight where they carry a bleep and are called by referrers to perform radiographic examinations.

Out-of-hours – Outside the hours of nine-five Monday to Friday.

Out patient – A patient that visits the hospital from outside, normally from their own home.

Picture Archiving and Communications System (PACS) - A combination of hardware and software dedicated to the short and long term storage, retrieval, management, distribution, and presentation of images. Electronic images and reports are transmitted digitally via PACS; this eliminates the need to manually file, retrieve, or transport film jackets.

Plain radiography – X-ray examinations that demonstrate the skeletal system or trunk.

Professional doctorate (DProf) – A doctoral qualification which is embedded in the student's profession. A part time programme normally involves two years of taught material and three years research.

Protocol – Rules about how to do something. Within the DID there are protocols for examinations which DRs follow. These detail which radiographic projections need to be taken in different situations.

Radiographic projections – The detailed description of how to position the patient, image receptor and X-ray tube to carry out the examination.

Radiographic reporting – the writing of a report to articulate the findings from a radiographic examination.

Radiologist - Physicians that utilise an array of imaging technologies to diagnose or treat disease.

Radio Nuclide Imaging (RNI) – Imaging the body using radio-isotopes.

Radiotherapy – The use of high doses of X-radiation to treat cancer and other diseases.

Referring clinician (referrer) – The health care practitioner that refers the patient for a radiographic examination and writes the X-ray request form.

Reflective practice – Looking (back) at ones practice and learning from it.

Reflexivity – Thinking about oneself, in terms of research this term is used when considering the role of the researcher in the research.

Reject bin – A bin which DRs used to use to throw out rejected X-ray films when they were not of sufficient quality.

Rigour – A research term used to mean accuracy and strictness.

Society of Radiographers (SoR) The Society of Radiographers is a trade union that represents more than 90% of the diagnostic and therapeutic radiographers in the United Kingdom. It was founded in 1920.

Teleradiology – The transmission of radiographic images and information via the telephone system.

Therapy Radiographers – Radiographers trained in radiotherapy.

Triage - A process of prioritising patients based on the severity of their condition.

Tuberculosis (TB) A common and often deadly infectious disease caused by various strains of mycobacteria, usually Mycobacterium tuberculosis in humans. Tuberculosis usually attacks the lungs but can also affect other parts of the body. It is spread through the air

Ultrasound – An imaging modality that uses sound waves to produce images of the body, commonly used to image pregnant women.

Viewing area – Part of the DID where the DRs work from and view their images. The X-ray rooms normally open off this area.

X-ray examination – The imaging or radiographic procedure.

X-ray request form – The form on which the referrer articulates the X-ray examination required, the patient's details and the patient's clinical history.

X-ray room – The room in which the X-ray examination is performed.

X-ray tube - a vacuum tube that produces X-rays which are used to image the body. It can be moved by the DR to image the patient.

1. Introduction.

This thesis investigates the workplace culture within my own profession of diagnostic radiography. The chosen research methodology is ethnography, and the workplace culture within one Diagnostic Imaging Department (DID) was studied in depth.

In this chapter I will provide an introduction to my study, its aims and objectives, myself as the researcher and my research stance, my definition of culture and an introduction to the research field.

1.1. Personal location.

This thesis is the result of my Professional Doctorate (DProf) which has been part of my life for the past five years. I decided to embark on a doctorate because I felt the need to further my studies and hone my research skills. Within the University where I work staff were being strongly encouraged to undertake doctoral study and research, and I felt that the time was right for me having completed my Masters (MSc) and Post Graduate Certificate in Education (PGCE).

I decided on a DProf for three main reasons; primarily because I wanted to carry out research that was grounded in practice and I was keen to study my own profession of diagnostic radiography where it was being practiced. I wanted to be able to have an impact on practice within my own profession. Secondly I liked the format of the DProf having two years of taught material providing research training and helping to focus on the specific research question. The third reason was that I wanted to be a part of a group of

students where I would be able to give and receive peer support. This has proved to be invaluable and due to the interprofessional nature of our group I have received support and also been enabled to understand different perspectives on my work and on research in general. As Lee (2009) states "Professional doctorates are associated with the acquisition of knowledge and research skills, to further advance or enhance profession practice" (p6).

This thesis includes the following chapters; introduction, literature review, methodology, results and discussion chapters, conclusions, recommendations and reflections on the DProf.

1.2. Title.

An ethnographic study of the culture in a Diagnostic Imaging Department (DID).

1.3. Purpose of study.

There has been very little written about radiographers and how they work and interact. Consequently, the work of diagnostic radiographers (DRs) is not widely understood and their work has not been examined in depth. In order for the profession to move forward it is necessary to understand what the DR's work involves on a day to day basis and what the work place culture is like.

The purpose of this study is to explore the culture in a DID, primarily focussing on DRs. This study will look at how radiographers work and what issues they face within their working environment such as time pressures, demands on

the service and career opportunities. The study will also look into what the DR does and how they do it. The intention is that this study will contribute to the sparse evidence base in this area by providing valuable insights into how radiographers work in the pressurised environment of the National Health Service (NHS). The results of this study will prove beneficial for prospective DRs and other health and social care professionals in establishing the role of the DR and how they work and interact and will aid in their understanding of the workings of the DID.

1.4. Research question / area.

What is the culture in a DID like and how does this working culture affect the work of DRs, their colleagues and patient care within the DID?

1.5. Aim.

To explore the culture in a DID with the primary focus on DRs

1.6. Objectives.

1. To describe the culture in a DID and highlight the current cultural issues that face DRs
2. To explore how people learn to become a DR and how they become professionally socialised
3. To look at how DRs communicate and interact within the DID

1.7. Rationale.

Radiography has a very short track record in research with much of its knowledge built on the research of medical practitioners and physicists rather

than radiographers themselves (Adams and Smith, 2003). Ng and White (2005) state that there is a need for qualitative research in radiography to "provide insight into certain topics of which little is known" (p217). Adams and Smith (2003) support this saying that "there is considerable potential for the sustained use of qualitative methodologies in radiography research to more clearly define what radiographers do and how they do it" (p194). The intention of this study is to fill this gap in the literature, providing insight into the daily work of the DR.

DRs work in many acute settings with the majority of DRs employed by the NHS, working in an acute NHS Trust. DRs are responsible for producing diagnostic images of the human body using various imaging modalities/technologies. DRs work in mainly uni-professional teams in the DID. DRs also interact with other health care professionals and NHS employees within the DID including; nurses, support staff, porters, domestic staff, clerical workers and secretaries. DRs carry out diagnostic imaging in other parts of the hospital such as; wards, accident and emergency (A&E), and operating theatres. In these situations DRs work single handed within a multidisciplinary team, with many other health care professionals (Radiography Careers, 2008).

In the NHS, clinical staff work within structures and boundaries, these can have a constraining effect on their daily practice (Allen, 2000). Allen (2000) found that nursing practice is affected by the structures and boundaries of the NHS, nurses felt constrained by policies and procedures. They were also concerned by staffing levels and by targets imposed upon them which

increased their workload and put pressure on them. Allen (2000) found that nurses felt that patient care was compromised. Adams and Smith (2003) suggest research into how DRs fit into the structure of the NHS and how this structure has an effect on areas such as professional identity, role, job satisfaction and morale. The purpose of this study, which is carried out within the NHS is to observe and describe the demands placed on the DR working in the NHS. It is hoped that in studying the workplace culture these areas will be explored.

Adams and Smith (2003) wrote a paper encouraging the use of qualitative methods in radiography research with an emphasis on exploring issues that affect DRs, looking at their perceptions and experiences. Ng and White (2005) also wrote a paper encouraging qualitative research in radiography particularly doing ethnographic research to observe the experiences of DRs in the workplace. This paper suggests the observation of DRs in practice to gain an understanding of how they work in order to look at their perceptions and experiences. They suggest observation as this will uncover rich data about the working environment of the DID which could not be explored through other research methods. In this thesis I aim to do just that; observe DRs carrying out their work, in order to describe and analyse their practice and the culture in which they work.

The purpose is to write in detail about the DRs work and workplace culture in order that those outside of radiography can gain an insight into the profession and also so that those within radiography can critically evaluate their own profession and develop their own practice.

This research will also contribute to my own professional development and my knowledge of my own profession and the issues that face DRs. I want to continue to carry out research in radiography to further uncover some of the issues and themes touched on in this study.

1.8. An insider's perspective: the position of the author in relation to this study.

I feel that it is important, at the outset of this study for me to outline my position as a researcher. Rigour in qualitative research includes the concept of reflexivity, which is the ability of the researcher to acknowledge and account for their role in the research process and the generation of data (Allen, 2004a). Richardson and St. Pierre (2005) say that this is particularly important as it is the researcher that is the research instrument, not the methods used.

I, Ruth Strudwick, the author of this study, am a diagnostic radiographer with 14 years experience. I worked as a clinical radiographer for eight years, then as a clinical lecturer and I am currently a senior lecturer at a university in the east of England, a role which I have undertaken for the past six years. I have had close involvement with many diagnostic radiographers working in placement hospitals associated with the university, of which the hospital where this research was carried out (hereafter known as Anytown NHS Trust) is a placement hospital.

My perspective is therefore not one of a detached, objective researcher. As a diagnostic radiographer I am very interested in the results of my study. I am

familiar with the working practices of DRs and how the DID functions. I am also familiar with current issues within the profession of radiography, both in clinical practice and in education.

As a senior lecturer at the university I have contact with many of the diagnostic radiographers in the region. I therefore knew many of the participants before I started this research. Those I did not know personally knew of me because of my role as a radiography lecturer.

The issue of role and identity became a major consideration for me as I explored how I fitted into the research field and my influence on the data collection. At times I had to stop and think about who I was; was I an educator, practitioner or researcher? During the observation, as I became a part of the culture, DRs would ask my opinion about things or discuss their practice with me. It was at times like this that I had to think about my role, why I was there and just how much I should participate. There were a few occasions when DRs were struggling with techniques or had questions which I was able to answer and when the students were present I felt the tension between my role as educator and researcher. I will revisit the tension between my three roles; practitioner, educator and researcher throughout the thesis.

As an educator in clinical practice I am interested in clinical practice and the training of DRs. I am programme leader for the interprofessional learning (IPL) modules at the university. These IPL modules involve pre-registration nursing, midwifery, social work, operating department practice, therapy and

diagnostic radiography students. It was this involvement that prompted my thoughts about occupational culture. Working with academic colleagues from different occupational backgrounds within health and social care prompted me to consider the personality traits and work based culture of the different professional groups. In my opinion and from my experiences when working with colleagues I feel that as a profession, radiographers work in a very structured way, and we tend to focus on the detail. Whereas, in complete contrast my colleagues from social work have a very different approach to their work, they tend to be more people-focussed and less interested in the detail. I see the approach of different professional groups as a spectrum with radiography at one end (with a more scientific approach), social work at the other (with a more people-centred approach) and all of the other health and social care professions falling somewhere in between.

I was interested in finding out if there was a particular workplace culture in a DID, and if there was a particular culture that was unique to DRs at work. One of my other areas of interest is how students learn how to become a DR which links with my current role as an educator. I am interested in the factors that influence students in their professional development and how they become professionally socialised.

My previous experience as a DR and my current role as an educator had the potential to influence this study. Because of my professional experience I have a good understanding of radiography, the terminology used and the cast of characters (Roberts, 2007). Therefore I was able to make a judgement about my observations based on my previous experiences. This gave me an

advantage over a non-DR investigating this topic as the participants did not need to provide lengthy explanations to me.

However, I am aware that I entered into this research with some pre-conceived ideas which, although I am aware of them may have subconsciously influenced the way I conducted my observations, interviews and the data analysis.

The participants were obviously aware of who I was and my current role and job title. Before the research commenced I spoke to all of the staff about my study at their staff meeting and handed out my participant information sheets and consent forms. Therefore all of the DRs were aware of why I was present in the DID. Participants will have formed their own opinions about me and about the research. They may also have considered my position and impartiality. It may also have been that because of my position, participants chose not to disclose their true thoughts and feelings, and may have been a little more reserved.

My reasons for sharing this information about myself is so that you, the reader understand my perspective and can see from which position I have approached this research. I hope that knowing this about me will help you to understand the reasons for my research approach and for the decisions I have made throughout the process.

1.9. Culture.

Many writers have tried to define culture. Ogbonna and Harris (2002) define culture as "the collective sum of beliefs, values, meanings and assumptions that are shared by a social group and that help to shape the ways in which they respond to each other and their external environment" (p34). Crotty (2005) sees culture as the source of human thought and behaviour, rather than the result and goes on to say that culture teaches us how to "see" things. Geertz (1973) agrees saying that culture is a concoction of "webs of significance" which man has spun and that any culture is a symbolic system with elements, relationships and symbols. Each culture has its own norms and values (Chesney, 2000), the culture can teach us how to "see" things as interpretations become layered and cultural meanings take over (Crotty, 2005). Fetterman (1989) defines culture as "the sum of a social group's observable patterns of behaviour, customs and way of life" (p27). Wolcott (1999) also sees culture as acquired social behaviour. Culture is about how members of a group interpret the world around them by developing shared understandings, it provides people with rules about how to operate in the world in which they live and work (Rubin and Rubin, 1995). Spradley (1980) says that culture is what people do, what they know and what they make and use, i.e. cultural behaviour, knowledge and artefacts. He also says that culture is the acquired knowledge people use to interpret experience and generate behaviour.

For the purposes of my study I am going to use the definition and explanation of culture provided by Beals et al. (1977, p27) "a culture emerges when a set of individuals come together to form a group and consciously or

subconsciously make decisions affecting some sort of common enterprise". They go on to say that culture includes ideas, plans and common understandings and that there are 5 main components of a cultural system;

1) a group or society with a set of members - for the DID this includes all of the staff working there.

2) an environment within which the members carry out their characteristic activities – for this study this will be the DID.

3) a material culture – equipment and artefacts, and effects of past and previous members – X-ray equipment, computers, documents, notice boards, white boards etc.

4) a cultural tradition – historically accumulated decisions, appropriateness and desirability of particular behaviours – how we do things around here.

5) human activities and behaviours – complex interactions between 1), 2), 3) and 4).

The culture I studied was the DR's workplace culture. The focus of this research was the DRs and the way that they work and interact.

I looked at the issues which face DRs in their work, encouraged by Adams and Smith (2003) and the perceptions and experiences of DRs, suggested by Ng and White (2005). I was particularly interested in how DRs became 'professionally socialised' and how they 'learnt' to be a DR and become a member of this community of practice (Lave and Wenger, 1991). DRs learn from one another and use shared language and symbolism when working (Crotty, 2005). I was interested in looking at how this occurs in practice and what this language and symbolism consists of.

The theoretical perspective that I have touched on is that of symbolic interactionism (Manis and Meltzer, 1978). This viewpoint explores the understandings that we have within society and culture that provide a meaningful matrix to guide our lives. The meanings and actions that we use are based on the meanings and actions of those around us. These can therefore be modified and adapted through our observation and interaction with other people. We learn to ascertain the intention of others and then make our responses to them on the basis of what we perceive to be their intention (Manis and Meltzer, 1978). This can be seen in any conversation where those involved listen to what is said and also observe the body language of the other person in order to interpret what is actually being said. For example, if a person says they are interested in what you are saying, but have a closed posture and do not make eye contact, then their body language is saying something different from their words and you would interpret this as disinterest. We carry out this interpretation all of the time subconsciously when we interact with others. Symbolic interactionism takes this further and says that over time we learn to interpret what others are saying and doing within our group based on our experience of that group and the interactions we have been involved in before. This means that we learn to behave in a certain way in order to elicit the response that we need.

Culture itself is based on human thought and behaviour (Crotty, 2005). We know what we know because of who we interact with, what we observe and what we learn from others. Symbolic interactionism looks at how different social groups interact within their group. Each group has a different common

understanding and a different set of words and symbols which are used by the group members. A member of a group learns these common behaviours through the observation of others and through role modelling. For example acceptable language and behaviour can be copied and learnt from others.

Thus a place of work can become a different social group in which the perspectives shared by the group gradually become internalised (Manis and Meltzer, 1978). This can be seen as developing a professional persona, such that being part of the group is almost a 'performance' (Atkinson and Housley, 2003). We develop our understanding of the social world of work by interpreting, constructing and re-constructing our ideas based around the interactions we observe and are involved in (O'Reilly, 2005). We learn what being part of the culture involves by making inferences and then testing these out (Spradley, 1980). A DR therefore learns how to behave like a DR and internalises shared values, symbols and actions, for example; how to behave, how to speak, what to say, how to dress and how to react in different situations.

Over the past decade DRs have taken on extended roles within the NHS which are not traditionally associated with key radiographic tasks (Prime and Le Masurier, 2000). DRs have taken on roles such as performing Gastro-intestinal radiography examinations, radiographic reporting and giving intravenous injections. This has increased job opportunities and job satisfaction within the profession of diagnostic radiography (Prime and Le Masurier, 2000). However, in some DIDs the culture is not supportive of this role development and of lifelong learning within the profession (Sim et al.,

2003). I was interested to see if role development and lifelong learning were issues that were discussed by DRs and what if any effects were seen within the working culture of the DID. It may be that role development causes conflict and bad feeling, or it may prove to have a positive effect upon the staff members in the DID.

1.10. Introduction to the DID.

This information has been included to provide some background to the DID in which the study was undertaken. This section will provide a context for the study and help you, the reader to gain an understanding of the workings of the DID. All of this section comes from my observations during week one of the study (Observation 11/8/08 - 15/8/08). Johnson (1995) advocates collecting data about apparently boring and obvious facts in order to provide a context for the study.

The DID where the research was carried out is located within a medium sized District General Hospital (referred to during this study as Anytown Hospital NHS Trust). Anytown Hospital NHS Trust has 474 beds and serves a catchment population of 275, 000 people. There are 12 operating theatres including a day surgery unit. The DID performed 113, 034 radiological examinations in the 2007-08 financial year.

The main DID houses general X-ray, fluoroscopy, CT, ultrasound, and RNI. A&E X-ray is located in the A&E department with MRI and breast screening located elsewhere in the hospital.

1.10.1. Staffing.

The DID employs 25 full time (FT) and 27 part time (PT) DRs, making 44.69 whole time equivalents (WTEs) in the main department (general and A&E X-ray, CT, MRI and RNI). There are also six FT and two PT clinical support staff, and 17 FT and ten PT non-clinical, administrative support staff.

The DID takes student radiographers on clinical placement from the local Higher Education Institution (HEI) where I am an employee. There are four diagnostic radiography students placed at Anytown Hospital NHS Trust each year, making a total of 12 student DRs over the three year groups.

Staffing in the main department is co-ordinated by the two superintendent DRs. Please see table 1 below.

Table 1: Daily staffing within the DID.

Area of DID	Examination room	Examinations carried out	DRs
Area B	Room 1	Interventional procedures	1
	Room 2	Out patients and IVUs (Out of action during the study period)	1
	Room 3	Fluoroscopy	2
	Room 4	Out patient plain radiography	2
	P2	Theatres and portables 2nd cover person	1
	Senior DR	Senior DR in charge of Area B	1
Area C	Rooms 5 & 6	In patient and out patient plain radiography	3
	P1	Theatres and portables 1st cover person	1
	Senior DR	Senior DR in charge of Area C	1
CT	Superintendent DR	Superintendent DR in charge of CT	1
	CT	CT	2
MRI	Superintendent DR	Superintendent DR in charge of MRI	1
	MRI	MRI	2
A&E	Senior DR	Senior DR in charge of A&E	1
	A&E	A&E	1
RNI	RNI	RNI	2
1-8			1
3-10			1
Nights			1
	Superintendent DR	Superintendent DR in charge of DID	2
	Manager	Manager in charge of DID	1

Within the DID there are five male DRs and the manager is male, all other DRs are female.

Most DRs work a 35 hour week, however those who have been employed since 2007 work a 37.5 hour week under Agenda for Change (DH, 2004). The DRs who work a 35 hour week work nine am – five pm, one – eight pm or three – ten pm and those who work a 37.5 hour week do 30 minutes extra each day either coming in 30 minutes early or leaving 30 minutes later. During each shift the DR has 60 minutes for lunch and two x 20 minute tea breaks, one in the morning and one in the afternoon. During my observations I noticed that many of the DRs in this DID stick rigidly to their breaks. I was unsure why this occurred but it appeared to be part of the culture to take your break at a certain time and it had always been done in this way.

Each day the senior or superintendent DR in charge of each area of the DID sorts out the 'lunches'. This involves allocating lunch breaks to the DRs in their team. Lunch breaks can be 12-1pm (first lunch), 1-2pm (second lunch) or 12:30-1:30pm (half and half). The time of a DR's lunch break governs the times of their morning and afternoon tea breaks, i.e. staff on first lunch go to tea first.

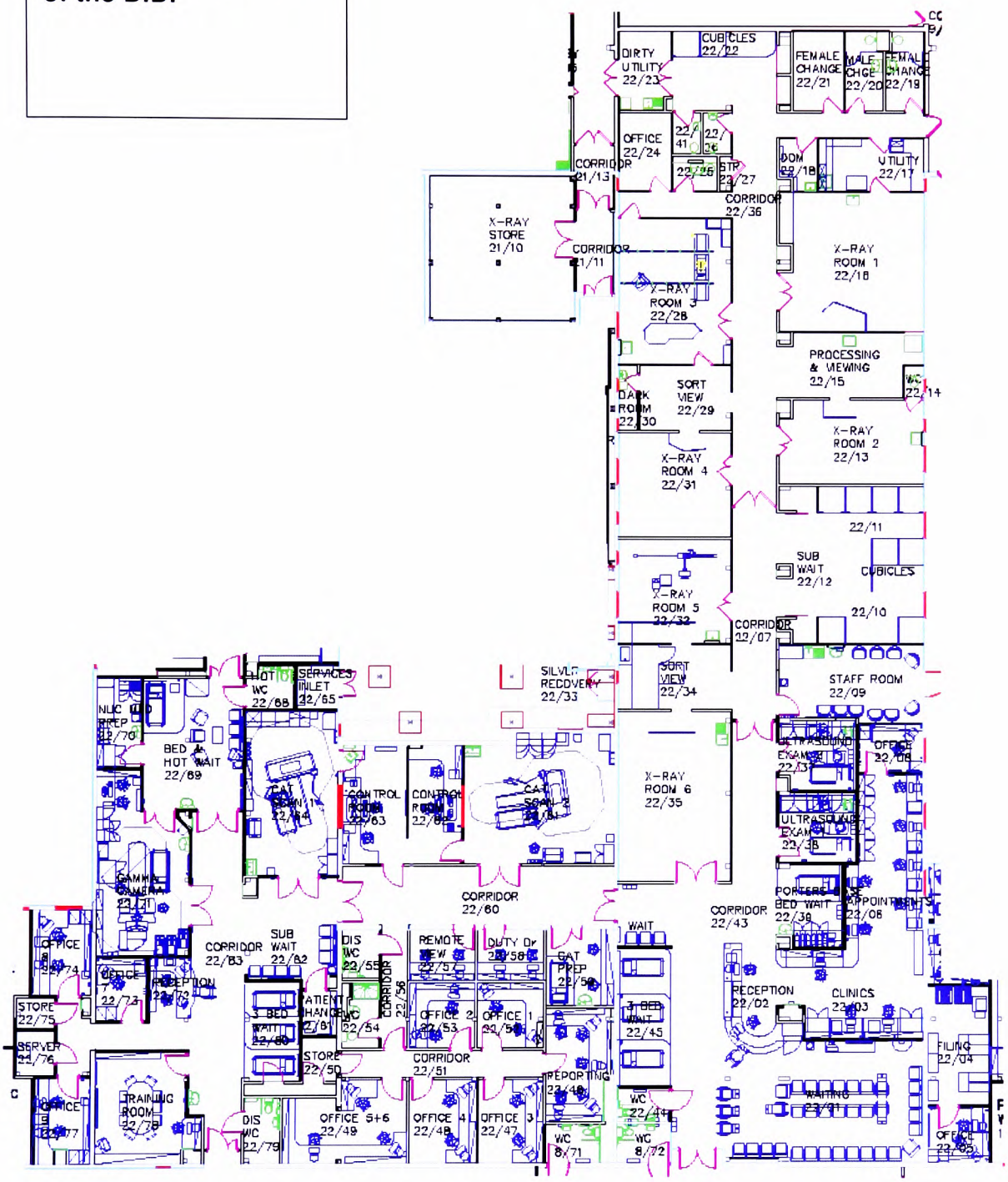
1.10.2. Geography.

Please refer to Figure 1: Floor Plan of the DID.

Within the DID the examination rooms are as follows: two CT rooms, one MRI room, two breast screening rooms, one A&E room (MRI, breast screening and A&E rooms are located elsewhere in the hospital and not in the

main DID), two fluoroscopy rooms, three general X-ray rooms (plus one out of action and waiting for replacement), two ultrasound rooms, two RNI rooms. This can all be seen in Figure 1. On entering the DID you come straight in to the main waiting area. On the left hand side are three bed bays which can have curtains pulled round. This area is used for in-patients to wait for X-ray and to return to the ward. The in-patients come to the DID either in their hospital beds or in wheelchairs. The rest of the waiting area contains chairs for walking patients to use. The waiting area has a mixture of high and low chairs, small tables with magazines on for patients to read and toys for children to play with. The main DID reception desk is opposite the bed bays and is normally staffed by two receptionists. The desk has a high surface for walking patients and a low surface for wheelchair users. The reception staff greet all who enter the DID and book patients in on the DID's computer system. Behind the reception desk is the DID office where the administrative staff are located. There is a separate reception, out patient waiting area and bed bay for CT and RNI (see Figure 1).

Figure 1: Floor plan of the DID.



1.10.3. Working practices.

When a patient arrives in the DID for an examination there is a set pattern. In-patients arrive in their bed or chair and are wheeled into the bed bay by the porter. The patient is booked into the computer system by the reception staff and once this is done the porter takes the X-ray request card round to the Area C viewing area, in between rooms five and six (see Figure 1). When an out patient arrives they hand in their X-ray request card to reception or if they have an appointment the receptionist will already have their card and will retrieve it. The patient is asked to wait in the main waiting area and the patient is booked on to the computer system by the receptionist. Once the patient is booked in one of the imaging assistants calls the patient from the waiting area and takes them up to the sub-wait near rooms four and five (see Figure 1). If the patient needs to get changed then the assistant gives the patient instructions, a gown to wear and a basket for their belongings. Once the patient is changed they wait in the sub-wait. The assistant takes their request card to Area C or Area B viewing area, depending on the workload in each area.

DRs call patients through for X-ray in the order that their request cards were received. Generally in-patients are imaged in room six as there is easier access to this room from the waiting area and the X-ray room is larger in size and so can accommodate beds more easily, this can be seen in Figure 1. Out-patients are imaged in rooms four and five. Please see Figures 2 and 3: Patient journeys through the DID.

Figure 2: Out-patient journey through the DID.

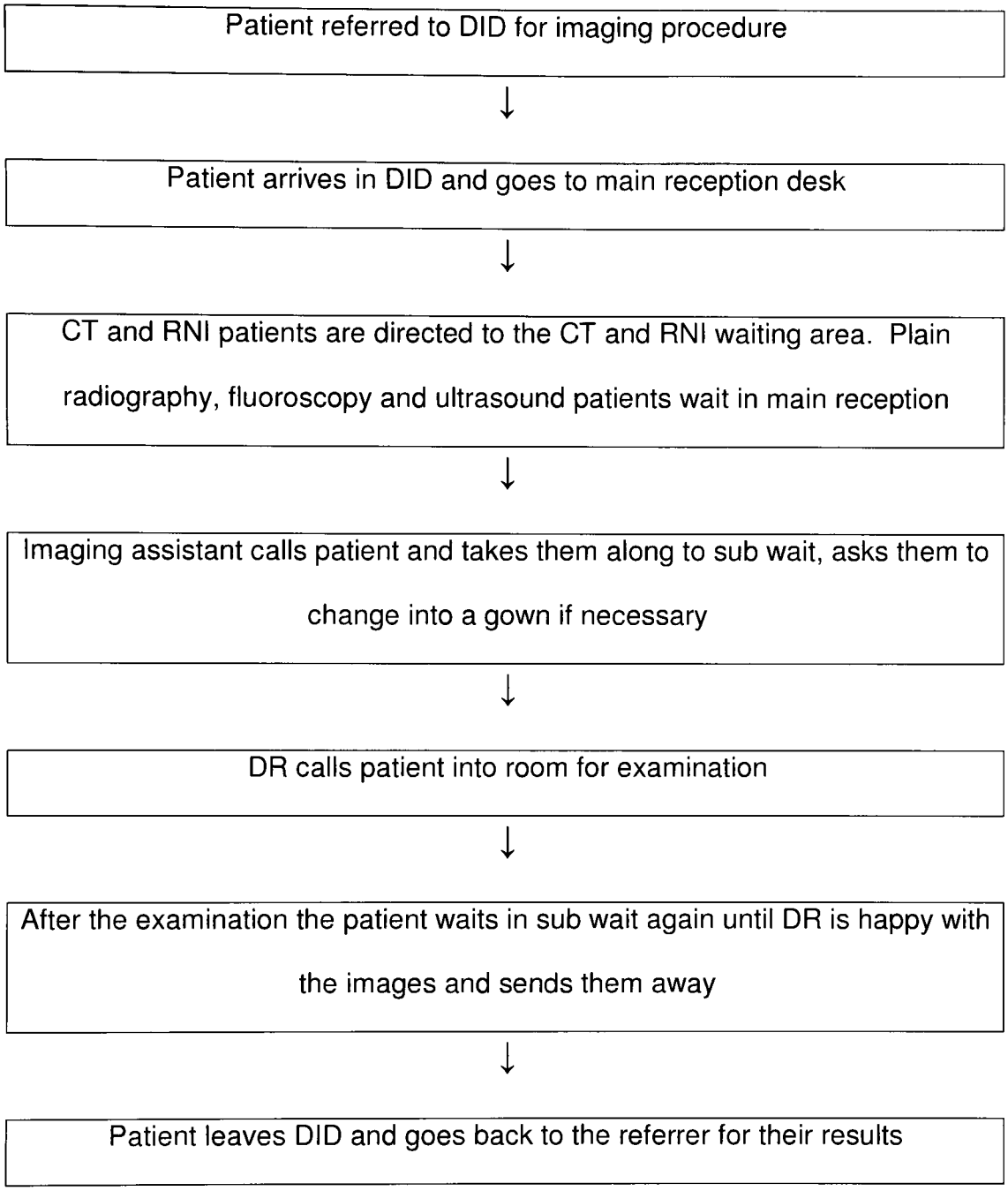
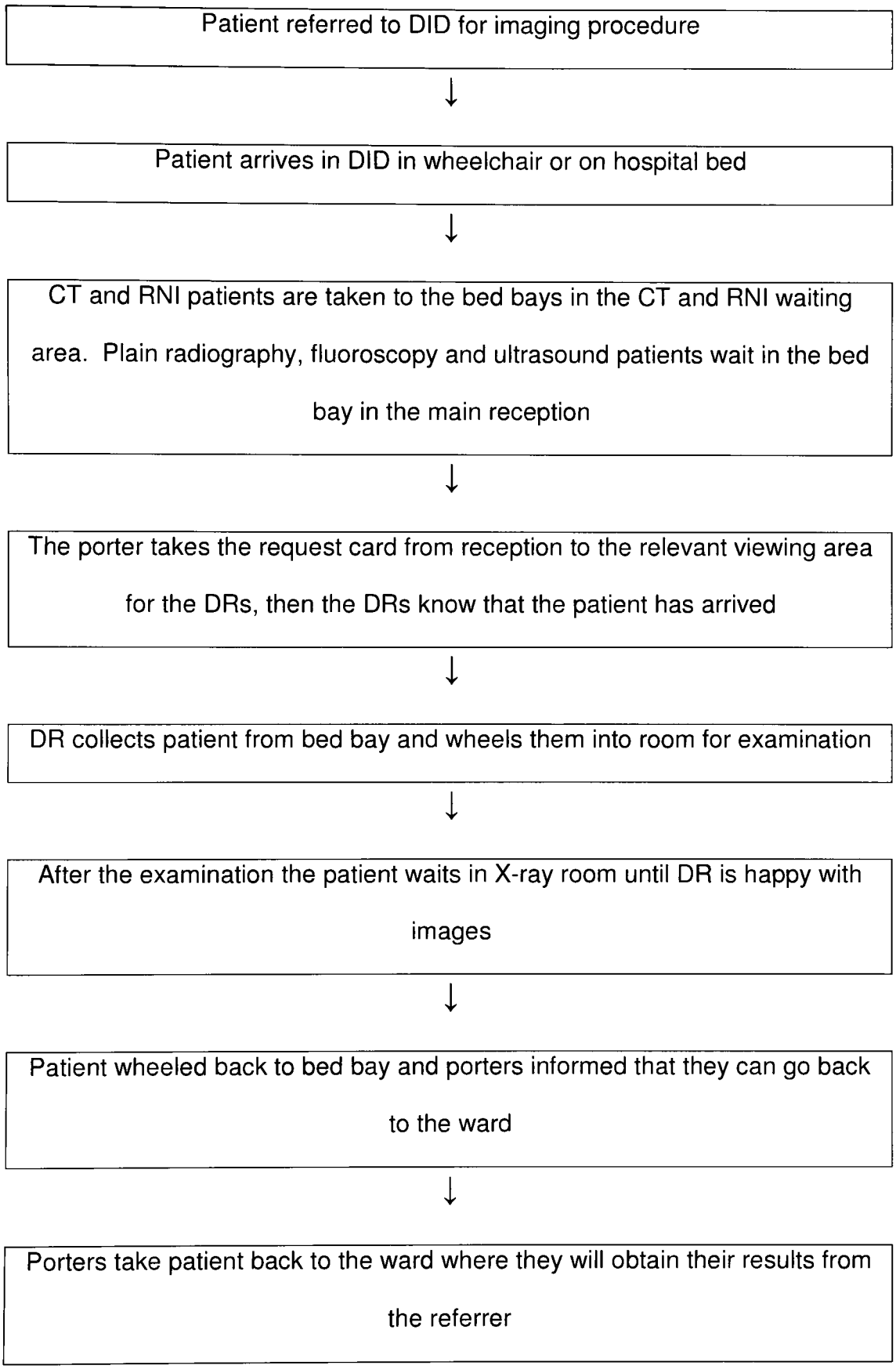


Figure 3: In-patient journey through the DID.



Patients attending for fluoroscopic procedures in room 3 come to the main waiting area like other out-patients and are taken to the sub-wait to change and wait for their appointment.

Patients who come for CT and RNI examinations are directed from the main reception to the CT and RNI reception. In-patients for CT and RNI wait in the CT/RNI bed bay and out-patients wait in the CT/RNI waiting area.

1.11. My research position / stance.

Before outlining my choice of methodology I feel it is important to introduce my research position. Creswell (2007) says that researchers bring their own views and sets of beliefs to their research and that good research requires making these assumptions explicit in the research.

The word 'paradigm' is often used when describing the research stance. A paradigm is the basic belief system or world view that governs and guides the research. This belief system influences the choice of methodology and research methods chosen to investigate the research question (Denzin and Lincoln, 1994).

Table 2 illustrates my research stance using categories from Denzin and Lincoln (1994):

Table 2: My research stance.

Ontology (the nature of reality)	Relativism. There is no single reality; rather we all have our own points of view and our own idea of reality. Multiple realities exist (Krauss, 2005).
Axiology (the role of values in inquiry)	Value-bound inquiry (Denzin and Lincoln, 1994). The research will be biased by my own individual perceptions (Krauss, 2005).
Epistemology (the relationship between the 'knower' and the 'known')	Subjective. The 'knower' and the 'known' are inseparable. Interpretivism – searches for patterns of meaning, describes meanings, tries to understand the participant's views, produced in natural contexts (Gephart, 1999). Constructivism – seen as a form of interpretive research (Gephart, 1999), states that meaning is not discovered but constructed (Crotty, 2005). Naturalism – research in the natural setting (Denzin and Lincoln, 1994).
Methodology (the particular practice used to attain knowledge)	Qualitative – looking for meanings, perspectives and understandings (Denzin and Lincoln, 1994). Carried out in the natural setting. Based on relativist, constructivist thinking where the researcher tries to create meaning based on their understanding of the world (Krauss, 2005). Ethnography is named as a methodology by some writers and a method by others.
Methods	Ethnography – participant observation, interviews and analysis of documents.
Logic	Inductive.
Generalisations	Time-free and context-free generalisations are not possible.
Causal linkages	All entities are simultaneously linked and shape each other. It is impossible to distinguish cause and effect (Denzin and Lincoln, 1994).

My research stance has had an influence on the way in which my research was undertaken. My ontological perspective means that this thesis will be my version of truth and how I perceive reality. I acknowledge that there are points of view and other interpretations of my data. I know that the research will be biased by my own individual perceptions, both in the way that data is collected, and the way in which it is interpreted. I believe that the researcher is part of the research, and as such my own personal perspectives will form part of my findings and my interpretation of the data. However, throughout my

work I have sought to acknowledge this and not keep it hidden. I know that my work is subjective, and acknowledge that the 'knower' (the researcher) and the 'known' (the results) are inseparable. This thesis searches for meanings and patterns of behaviour, not absolute truth. I am seeking to create meanings based on what I find from the data, and all of the data and interpretations will be grounded in the moment of their existence, so that generalisations to the whole population cannot be made.

The implications of studying and understanding radiography from this perspective are seeing the profession in a different light. Many of the studies carried out in radiography are scientific and quantitative in nature and do not take account of people's ideas, feelings and values. The findings from this study are my own interpretation of the culture but I hope that you, the reader can identify with my interpretations.

2. Literature Review.

An extensive search of the literature was carried out between 1st January 2008 and 1st January 2009. This literature search used the databases Ovid, MEDLINE, Google Scholar, Web of Science and Scopus. Ovid and MEDLINE were recommended to the author by colleagues and Bakkalbasi et al. (2006) recommend the use of Google Scholar, Web of Science and Scopus, stating that these three databases together return the highest number of citations for literature searching. Scopus and Google Scholar also uncover Grey literature.

The search terms used were:

1) cultural anthropology and radiography
2) ethnograph* and radiograph*

The search was limited to include articles published after and including 1988, this was to include studies carried out over the past 20 years in radiography to account for the many changes that have occurred in the profession over that time.

No studies were found from Ovid or MEDLINE. Google Scholar uncovered no work from search 1) and four relevant articles were found from search 2). Web of Science uncovered 11 articles from search 1), all of which were about patients and people groups, and not about DRs. Search 2) from Web of Science found 14 articles, one of which was relevant to this study. Scopus found 62 articles from search 1), five of which were the same as those found by other databases. Search 2) on Scopus found 15 articles, two of which were new and relevant to this study.

There were very few studies about the culture in radiography. The studies that have been written concentrate on one particular issue and the culture around it. For example Karasti et al. (1998) look at the effect of teleradiology on culture using ethnography in Finland, Larrson et al. (2008) investigate knowledge in image production using observation in Sweden, and Brooks (1989) looks at patient care in radiotherapy using interviews and observation. It became apparent that there was a gap in the literature with few ethnographic studies looking generally at the culture in a DID and focussing on DRs. Ethnography does not appear to be a widely used methodology in research about radiography.

A much broader study of the literature encompassing wider issues of culture within the profession of radiography was conducted using the search terms:

- culture and radiography
- organisational culture and radiography
- culture and DID or X-ray department
- organisational culture and the NHS
- professional socialisation and radiography

The rest of this section reviews the literature which was uncovered using a combination of these terms and 48 relevant articles were found. Each literature search used Ovid, MEDLINE, Google Scholar, Web of Science and Scopus. Links to other similar and relevant articles were also explored.

2.1 Workplace culture in radiography.

Within the workplace it has been found that a culture exists, often termed workplace or organisational culture. Brown (1998) in his book on organisational culture defines this as a set of meanings that are shared by a group of workers. Parker and Bradley (2000), who carried out research into organisational culture within six public sector organisations in Australia, say that organisational culture consists of widely shared and strongly held values within the organisation/workplace. Sim et al. (2003) carried out research to investigate the impact of workplace and university cultures on the development of lifelong learners. This extensive study was carried out nationally in Australia amongst undergraduate radiography students. A variety of research methods were used including surveys, interviews and focus groups in order to triangulate findings. The participants included academics, students and practitioners. Although carried out in Australia the results could be relevant to the UK as radiography training in Australia is similar to the UK. However, it is important to acknowledge that these results are not generalisable to the UK. They found that workplace culture can either encourage or impede lifelong learning, depending on the staff members present. The respondents agreed that the workplace in general is not supportive of lifelong learning. This is evidenced by the lack of a supportive learning environment, lack of support for research initiatives and lifelong learning not being part of the selection criteria for radiography posts. In the radiography workplace many practices are embedded in protocols and routines, also referred to by Booth and Manning (2006), Decker and Iphofen (2005) and Hafslund et al.(2008) in their empirical studies. This does not

always encourage an inquisitive and critical mind, one respondent summed this up by saying that "the profession itself is the biggest brick wall that I am running against, again and again" (Sim et al., 2003 p103). Because of the rigid nature of practice and following protocols and procedures, this DR felt that her opportunities were being limited by this rigidity and she wasn't having opportunities to change and develop her practice. The culture around lifelong learning within radiography is also influenced by the specific DID that a DR is working in. Some DIDs will have a supportive learning culture and others will not, this will depend on the people working in the DID and if the management is supportive of learning and development or not.

Mayles (2003) wrote a personal commentary about the workplace culture in radiotherapy based on his reflections on the issues. This has many parallels to the workplace culture in DIDs. The ways that the departments are staffed and structured are similar and there are many common elements of training in diagnostic and therapeutic radiography, although the role of DRs and therapy radiographers are different. Mayles (2003) cites staff shortages and the financial climate as having a negative impact on the current culture, with therapy radiographers not being happy in their work or role. He also comments on the four-tier structure implementation (assistant practitioner, practitioner, advanced practitioner and consultant practitioner) and how some existing staff feel threatened by the assistant practitioner role and have resisted changes in the re-distribution of tasks, a finding which White and McKay (2004) concur with. Mayles (2003) says that some radiotherapy staff are inflexible in their working practices, resisting changes in role and work distribution. This paper was written in 2003, and it will be interesting to see if

this is true for the DID at Anytown. It may be that there are differences between the two radiography professions or that there have been changes over the past seven years.

It appears from the literature that as a professional group, diagnostic radiographers can also be inflexible and show resistance to change. White and McKay (2004) found this in their review article about specialist practice in radiography. This may also be due to reliance on protocols and routines (Sim et al., 2003; Decker and Iphofen, 2005), and that in the past radiography has been very much reliant on tradition and subjective experience (Hafslund et al., 2008). Booth and Manning (2006) in their empirical study refer to a previous reliance in radiography education on the medical model of care – which focuses on disease and diagnosis, and this may still form the focus of the work of the radiographer. Over the past decade there has been much role extension and expansion (White and McKay, 2004). However, radiographers appear resistant to change and see the need to protect their own practice domain (ibid). Decker and Iphofen (2005) agree that at times radiographers have found it hard to adapt to and cope with change. Radiographers have the challenge of working in an increasingly changing healthcare environment and along with technological advances the field of diagnostic radiography is constantly changing (ibid). Mork et al. (2008) agree with the idea that radiographers may be resistant to change, particularly when there may be issues of identity and blurring of professional boundaries, "for some individuals it is impossible to let go of their identity, and they will work in their traditional way until they retire" (ibid, p17). However, the changes in health

and social care education to include interprofessional learning at pre-registration level may well have a future influence on this 'inflexible' attitude.

Decker and Iphofen (2005) write about the use of oral history in the development of the profession of radiography. Previous knowledge of radiography as a profession has been based on what is written about or learnt from others. In the past, professional development in radiography has been dominated by research from radiology and physics (Adams and Smith, 2003; Decker and Iphofen, 2005). Decker and Iphofen (2005) argue that an insight into the past experiences of radiographers will help to inform the future of the profession,

> "knowledge of the experiences of the early practitioners and the changes they have witnessed in the course of their career could help shed light on what those practices were like, how they have informed current practice and might inform the direction of future practice" (p263).

They suggest that an ethnographic study of radiographers would help to investigate this further with observations carried out in departmental viewing areas and staff rooms, an environment where the profession is both discussed and practiced (Decker and Iphofen, 2005). This is shown as a gap in the literature.

In summary, the environment in which radiographers work has seen many changes over the past decade including changes in the education and training of radiographers, the increasing need for lifelong learning and technological advances. All of these changes have meant that radiographers have needed to be adaptable to change, a concept which some have found difficult due to the history of the profession and the way in which they have worked in the

past. These aspects might have an effect on the working culture within the DID which this thesis will investigate in more detail.

2.2. Professional development and socialisation.

One of the ways in which a profession develops is through professional networks. Lave and Wenger (1991) have written extensively about these 'communities of practice' and Southon (2006) has written a review article about professional networks in radiography. The concept of a community of practice or professional network refers to the process of social learning (learning through close contact, imitation/role modelling and understanding of concepts), support and collaboration that occurs within the workplace. Southon (2006) sees these networks as a way of supporting clinical competence where professionals provide support for one another. These networks are quite common in health professions; they often arise naturally and are informal (Southon, 2006). Expertise can be shared and specialist knowledge developed. "Networks make possible the comparison of experiences and practices by those who know them in detail" (Southon, 2006 p101). He maintains that these networks can enhance the provision of radiography services. However, it may also be the case that a professional network could be detrimental to the development of the profession. This could occur if practice was not challenged by others resulting in the perpetuation of poor practice and resistance to any suggestion of change.

Communities of practice are normally formed within a single professional group; however a network may also form from a multidisciplinary group that work together with the same goals/aims. Mork et al. (2008) carried out an

ethnographic study of a medical department in Oslo, involving observation and interviews with different medical professionals (including radiographers). They found that different professional groups and communities of practice found it difficult to take another group's perspective into account therefore they might have a constraining effect on progress and innovation. This article was included to highlight some of the issues that DRs may have when working in multi-disciplinary teams. There is also a tension between management hierarchy and clinical networks. They co-exist and each structure brings different principles; hierarchy brings order, control and accountability, and networks bring about knowledge, innovation and capability (Southon, 2006). In order for professional networks to have a positive influence the professional needs to become integrated into the culture. Southon (2006) says that this will enable the professional to be a part of the group, allowing them to benefit from peer support, to learn from others and to be accountable to the team. This should result in improvements to the service and opportunities for development. However, if the individual professional is not integrated into the group then these networks could have a negative effect on that individual, engendering feelings of exclusion and isolation. This could happen if an individual did not agree with the way in which the work was being carried out and wanted to challenge practice.

How employees become a part of the culture and how they learn to take on their professional role is another aspect of organisational culture. It is interesting to look at how people become socialised into their profession. Another part of the work of Lave and Wenger (1991) looks at professional socialisation and how a newcomer joins a community of practice. Howkins

and Ewens (1999) in their empirical study amongst community nursing students define professional socialisation as learning during education and training, the values, behaviours and attitudes necessary to assume the professional role, and knowing and understanding the profession. It involves acquiring knowledge which produces the correct conduct and allows others from the profession to recognise them as competent. One of the key aspects is role modelling. Lewis and Robinson (2003) carried out a study in Australia to gain a greater understanding of role modelling in diagnostic and therapeutic radiography. The study was carried out in eight clinical centres ranging from large to small hospitals. Structured interviews and short written tasks were carried out with staff ranging from recently qualified radiographers to managers. This study was extensive and surveyed a large amount of staff. They said that professional growth is shaped and influenced by behavioural models accepted in the workplace and identifying of role models and positive attributes are important parts of professionalisation. Role models can demonstrate desirable skills and positive professional characteristics; senior staff can therefore influence the attitudes of junior staff and the perpetuation of behaviour. Lewis and Robinson (2003) assert that creation of positive role models is essential for professional growth in radiography. An observational study would have added rigor to the findings. The staff involved in this research may have said something different in their interviews from what actually occurred within practice. There was no way of verifying the answers given by participants about role modelling and it may be that the participants just told the researchers what they thought the researchers wanted to hear. My thesis will use observation of practice and should therefore help to

uncover any differences between what is said during the interviews and what is actually occurring in practice.

Colley et al. (2003) argue that learning is a process of 'becoming', and that occupational socialisation involves identity transformation. Their study looked at student nursery nurses, health workers and engineers. They used a variety of methods to study the students including interviews with students and tutors, observation, questionnaires and journals kept by tutors. The study was conducted over a two year period and was very rigorous. Data from each method was compared and themes were generated. They found that individuals become absorbed into the prevailing culture of the workplace and the norms of a particular role. I hope to be able to use a similar approach, utilising several data collection methods in order to compare findings. The findings of this study by Colley et al. (2003) backs up the theory of interactionism where people new to a group learn the shared symbols, values and beliefs that allow them to become part of the culture, and they begin to 'perform' like a group member (Atkinson and Housley, 2003).

A number of authors have written about professional socialisation in nursing (Holland, 1999; Howkins and Ewens, 1999; Mackintosh, 2006). The process of socialisation can impact on the development of a specific occupational personality which occurs after internalisation. Student nurses take on an "occupationally specific viewpoint" (Mackintosh, 2006 p954). Mackinosh (2006) interviewed student nurses at the beginning and end of their period of training. He felt that socialisation can also affect the way in which student nurses care about patients and some had developed a degree of emotional

hardness from observing the practice of nurses. Holland (1999), who also studied student nurses using questionnaires and interviews, concludes that the qualified nurses who are role models and mentors could be said to be gatekeepers to the knowledge and skills required for students to exist within the culture of nursing. Neither of these studies observed the student nurses in practice and so it may be that the students emphasised different aspects in an interview to that which was occurring in practice.

One aspect of professional socialisation is learning to communicate with patients. Within radiography, communication with patients is a skill that is acquired throughout training. Booth and Manning (2006) carried out an exploratory study of radiographer communication using Transactional Analysis which is a model of psychotherapy first developed by the psychologist Eric Berne in the 1960s. Being able to communicate effectively is key to the role of the radiographer. It is, however difficult to assess this area of practice as there is no end product. This study identified and classified the styles of communication used in radiography, looking at communication between diagnostic radiographers and patients. This was a relatively small study with only 41 DRs so the results cannot be seen as conclusive and representative of the whole population. However, Booth and Manning (2006) found a similar pattern to nursing in that the majority of interactions are parental or practitioner-centred, which mean that the practitioner takes control of the interaction, giving little control to the patient. This indicates a pattern of behaviour amongst health care professionals. They state that this may be due to the hierarchical nature of the hospital organisation which is authoritarian in nature. The 'controlling parent' where

the professional focuses on technical aspects and giving of commands can be used for effective time management as the radiographer takes control of the examination/interaction. Because of the emphasis on throughput, radiographers try to process as many patients in as short a time possible (Decker and Iphofen, 2005; Booth and Manning, 2006). The DR appears to experience a tension here between providing good quality patient care and seeing as many patients as possible. It seems from the study by Booth and Manning (2006) that these DRs perceive that it is not possible to satisfy both of these requirements.

In summary, the culture can be influenced by the practitioners themselves and the ways in which new practitioners are professionally socialised.

2.3. Continuing Professional Development (CPD).

CPD is an important aspect of the professional life of a radiographer. It may be that the culture of a DID has an effect on CPD or that CPD influences the culture in the DID. Radiographers need to develop their clinical and professional practice and keep up to date with advancements in technology and practice.

> "Radiographers should avail themselves of every opportunity to increase their knowledge of the science and practice of their chosen discipline. They should recognise their professional obligation to undertake life-long learning" (SCoR, 2003 p6).

Henwood et al. (2004) investigated radiographers' attitudes to mandatory CPD in the UK and New Zealand through a questionnaire sent out to 1739 radiographers, 250 in the UK selected by a random sample, and 1489 in New Zealand which was all registered practitioners. No real reason was given for the discrepancy in sampling strategy between the two countries. The

response rate for the UK was 52%, and it was 41% for New Zealand. There were two main statistically significant themes; support and outcome. Support for staff to undertake CPD activities and the outcome of participation in CPD. Henwood et al. (2004) discovered an overall ambivalent attitude to CPD amongst radiographers in both countries. It may be useful to investigate these attitudes further now that the Health Professions Council (HPC) have introduced an audit of CPD for Allied Health Professionals (including DRs). It may be that since this was introduced in 2009, DRs' attitudes, support and outcomes have changed.

Sim and Radloff (2008) looked at CPD using an on-line tool to enhance CPD and reflective practice. This tool was piloted twice with two volunteer groups of radiographers (26 in total). This was a very small sample and cannot be representative of all radiographers, particularly as the participants were volunteers. The researchers felt that the current CPD focus in radiography is on updating knowledge and that we need to progress to assist practitioners in developing attributes necessary for reflective practice and advanced clinical practice. Sim and Radloff (2008) acknowledge that radiographers work in an environment that is protocol driven and that the workplace promotes a culture of conformity. They go on to suggest that "in a workplace that is protocol-driven, reflective thinking can assist practitioners to break away from the protocol-driven workplace culture" (ibid p2). The protocol-driven, rigid structure of the DID is mentioned by many writers. It will be interesting to see if this is evident in my study.

Henwood and Taket (2008) also looked at a model for CPD and explored diagnostic radiographer's views with 25 unstructured and 38 focussed interviews and a literature review. They found three main themes from the data which influence a DR's views of CPD and how they engage in CPD activities. The first theme was the individual DR; their attitude, perception, awareness and what CPD means to them. Henwood and Taket (2008) viewed this theme as being the individual's drive and desire to be engaged in CPD and these are elements over which the DR has control. The second theme to emerge from the data was facilitation; which meant all of those activities that assist an individual to participate in CPD, such as the culture of their working environment, finance, empowerment and encouragement from others. Facilitation was made easier if there was an existing learning culture within the DR's department and a culture of implementing CPD in practice. Henwood and Taket (2008) also included support, respect, encouragement and recognition under the heading of facilitation. Their final theme was external influences. By this they meant imposed influences which do not originate within the individual but push the DR to participate in CPD. These include professional and regulatory bodies, the work environment/culture, service users, other health care professionals, mandatory CPD, changing role boundaries and the change to a culture of expectation of CPD participation (ibid).

There is an expectation within the NHS that a health professional's CPD is ongoing and continuous, that CPD should protect the public and contribute to personal professional development (Henwood and Taket, 2008). However, it is difficult to measure the effectiveness of CPD. Active participation is

necessary in order to gain from CPD activities. Minton (1998) expressed similar opinions in her editorial for 'Medical Teacher'. She felt that radiographers needed to take responsibility for their own learning and that there needs to be a link between the learning experience and what the practitioner needs to know. Minton (1998) states that the history of radiography education consisted of radiographers being told what to learn rather than identifying subject areas and sources from and about which to learn. There is a need to "change the culture in radiography practice from teaching to learning" (Minton, 1998 p399). She suggests that there are three key players in the promotion of this cultural shift; radiography education centres, the College of Radiographers (CoR) and professionals. Radiography education centres should ensure that graduates are enabled and empowered to direct their own study and provide assistance in terms of post-registration opportunities. The CoR should lead the way in directing radiographers, which Minton (1998) says has not been the case, causing anxiety amongst radiographers. She also feels that radiographers need to strive for professional development, "in order to progress and promote the profession, and to be recognised as autonomous practitioners in our own right, we must embrace the idea of CPD wholeheartedly" (Minton, 1998 p400). The issues of CPD and lifelong learning shape the culture of professional development in radiography. Although this article is 12 years old now, it seems that the same themes ring true. I acknowledge that this is an editorial with no actual research findings, however the views stated by the author concur with findings from research and she shares the same perspective as other writers.

In summary it is clear that the culture is not always one that promotes and values CPD. This may be due to the history of the profession and the nature of the work. With the changes in education and opportunities for advanced practice there has been a culture shift from teaching to learning. It is clear that practitioners need to take ownership of their learning and CPD. Advanced practice has encouraged CPD and this may have highlighted the contrast between highly motivated practitioners and those with an ambivalent attitude to CPD.

2.4. Research in radiography.

Gambling et al. (2003) suggest that we should draw on research evidence to inform clinical practice and decision-making in their discussion paper. They also suggest that there is the beginning of a culture of learning within radiography, particularly with CPD and with research methods forming a part of undergraduate radiography education. Radiographers are being encouraged to engage in research activities in order to promote evidence based practice (DH, 2000). However, "for radiography, the existing body of research is limited" (Gambling et al., 2003 p73). Adams and Smith (2003) agree, pointing out that there is a limited amount of research published by radiographers and that there is a need to further develop a research culture within radiography. Adams and Smith (2003) also feel that there is a negative attitude to research within the profession and a lack of research skills. In 2004 the Society of Radiographers' (SoR) research strategy (Reeves et al., 2004) stated that radiography was lagging behind other Allied Health Professions (AHPs) in research. She stated that radiographers need to become more research aware as there was a need to instil an evidence-

based culture, more professional responsibility and self-regulation. In order to be recognised as a profession, a group needs to have its own recognised body of knowledge which can be added to. If radiography is to establish professional recognition a recognised research background is essential (Ng and White, 2005; Reeves, 2008). Increasing the research awareness in radiography should encourage evidence-based practice and lifelong learning. Hafslund et al. (2008) wrote a review article looking at evidence-based practice in radiography. This paper encourages radiographers to become research active and to develop best practice. They believe that in radiography there is a gap between best practice and actual practice and that radiography is very much reliant on tradition and subjective experience. This paper implies that there is reluctance within the profession to carry out research, "traditionally, as a discipline, radiography has not been perceived by its practitioners to require investigation" (Hafslund et al., 2008 p2). Reeves (2008) believes that research into the complexity and uniqueness of the consultant practitioner roles is necessary. She says that more qualitative research is needed in radiography. However, not all DRs will read such articles. It is widely known within the profession that very few DRs read research articles or read their own professional journal 'Radiography', so in order to transfer this message to as many DRs as possible other means need to be used so that the information is more readily accessible to DRs. This could include using the monthly SoR magazine 'Synergy' which has a greater readership amongst DRs.

In summary the culture in radiography has clearly had an effect on research in the past, however radiography research is changing. Price (2008a p95)

states that since 2003 "the profession of radiography has advanced significantly" he links this to "the establishment of consultant and advanced practitioner posts; the extent of radiographer-led research in radiotherapy and the quality of research in HEIs". However he also says that "there is a need for more radiographer-led clinical research to improve patient outcomes and to strengthen the profession" (Price, 2008a p4). In his editorial for the profession's peer reviewed journal, Price (2008b) outlines the progress that the radiography profession has made in research stating that "the number and quality of research articles has increased"(p275). Along with this comes changes to the culture around evidence based practice and CPD. So there is contradiction here with some authors saying that there is little research being carried out by DRs, and other saying that research by DRs is increasing. There is however, an acknowledgement that there needs to be more research carried out within radiography by DRs and that DRs are not reading or utilising the research that has been done.

2.5. Management and organisation.

Radiology service management in the NHS tends to be done by clinical radiographers who move into service management. Forbes and Prime (1999) surveyed a group of 25 radiographers who were moving into management roles in Scotland and England using semi-structured interviews. All of those studied cited a tension in role change and a conflict between the manager and the professional role. However, the managers felt it important that they were managing an area that they were familiar with, "the primary socialisation of such managers was as a healthcare professional" (Forbes and Prime, 1999 p108). The managers experienced differences of opinion with their medical

colleagues who were in clinical management positions. They found it hard to escape from their radiography roots and this had an influence on their decision making.

As well as the management of the department, the organisation in which the professional is employed can influence the culture. Makanjee et al. (2006) studied the effect of perceived organisational support on organisational commitment of radiographers in South Africa through a questionnaire. This questionnaire was sent to 123 DRs in South Africa working across the country. This was a small study with a relatively small sample size and therefore these findings are not representative of the population. It would have been useful to follow up some of the findings with interviews to clarify some of the statements made in the questionnaires. The results however were interesting. They found that employees tend to commit to an organisation if they feel that the organisation is committed to them and their commitment to the organisation was influenced by the people in the organisation. Some radiographers felt that their performance was unfairly appraised; promotion difficult, good achievements unrecognised and pay not market related. Most radiographers remained in their current organisation out of necessity rather than desire (Makanjee et al., 2006). This research was carried out in South Africa, so it may not be relevant to the situation in the UK; however the research uncovers some interesting points around job satisfaction and the willingness of DRs to share how they feel. As this was an emotive subject the results may be biased, as those who responded to the questionnaire probably had job satisfaction issues which they wanted to make known.

Poland et al. (2005) wrote a discussion paper about the location in which health and social care services are offered. DIDs are often dimly lit and full of equipment and technology. They maintain that the place in which health care activity occurs becomes a part of that activity, and the location becomes a part of the culture. They also argue that the technology used also contributes to the work place culture; it influences how people interact, share information and work (ibid). In application to radiography the environment in which DRs work can influence the behaviour of those working and receiving care there. Perhaps the technology can be a barrier to the DR caring for the patient in some circumstances.

Coombs et al. (2003) carried out a qualitative survey looking at radiography as a career and the NHS as an employer. They carried out individual and group interviews with school pupils, radiography students, mature students, radiography assistants, agency radiographers and independent sector radiographers. According to Coombs et al. (2003) a negative perception of the radiography profession meant that for these individuals it was not an attractive career choice. The participants also had a negative view of working in the NHS, citing staff shortages and a stressful work situation leading to having less time to spend with patients and therefore providing a poor level of service. Negative perceptions of the workplace may have a negative effect on radiographers and their morale. The reasons for these negative perceptions are not explored in depth by the researchers. It would be interesting to see where these ideas came from, for example the media, friends, family or experiences.

Davies et al. (2000) conducted a literature review about organisational culture in health care and how the organisation can be transformed. They start by saying that a number of writers have instilled the notion that organisational culture is a crucial variable in the management of organisational performance. If this is true then in order to make improvements in the NHS there needs to be a transformation of the culture within the organisation. The former labour government seem to have taken this view in their health policy and have tried to positively manage the NHS culture in order to deliver health care improvements. Since their election in 1997, quality in the NHS has been their central reform issue. This was set out in the White Paper (Secretary of State for Health, 1998a) and in supporting documents (Secretary of State for Health, 1998b; NHS Executive, 1998). However, it is obvious that although some cultural attributes are common across the NHS, such as the way things are done, understood and judged; different cultures emerge, for example within different occupational or professional groups (Davies et al., 2000). McDonald (2005) looked at the effects of an empowerment programme which was piloted in one NHS Trust and this paper is the result of the ethnographic study. The study was rigorous and was conducted over a two year period within the Trust. The researcher gathered a lot of meaningful data over the two year period from observation, interviews and the study of documents. She suggests that this attempt at 'culture change' was aimed at manipulating individual employees' behaviour and values and could be perceived as trying to alter the identity of the employees. The employees reacted in different ways, some resisted the changes and others actively engaged in projects to bring them 'into line'. The programme resulted in tensions between the staff

members and conflicts of allegiance and identity (McDonald, 2005). It is interesting to note that the former labour government wanted to change the culture in the NHS and see this culture as a controllable variable (McDonald, 2005). However, if the definition of organisational culture by Parker and Bradley (2000) that it consists of widely shared and strongly held values within the organisation/workplace holds true, it will be difficult to change this culture.

In summary, the way in which an organisation is managed, the working environment, the morale of staff and the culture of the whole organisation can influence the way in which people do their jobs and the service they provide.

2.6. Imaging technology.

DIDs are full of equipment used for imaging patients. Back in 1986 Barley stated that technology influences organisational structures. Since the installation of computed radiography (CR), digital radiography (DR) and picture archiving and communication systems (PACS) it is thought that the way in which radiographers work has changed. Larsson et al. (2007) carried out an ethnographic study in Sweden over a two year period to look at the effects of PACS on radiographers' work practice. They used observation and interviews in five different hospitals. They found that the introduction of PACS meant that radiographers' work practices changed and that space in the DID was used differently with radiographers working more independently with less time waiting for the images to be processed in one area of the department. Larrson et al. (2007) state that the tools and artefacts used by DRs are integral to their role, which would fit with the definition of culture by Beals et al. (1977) where artefacts are seen as a significant part of any culture. In this

case the artefacts would be the equipment used, and the radiographic images produced.

Larrson et al. (2008) also looked at PACS but in relation to how radiographers use knowledge in image production using PACS from the same data used in the 2007 article. They speak about the many changes that have occurred in technology and radiography. Radiographers need to know how the equipment works in order to produce a diagnostic image. Radiographers combine these skills with those of patient care. Murphy (2006) says that

> "The role of the radiographer, in an area requiring highly skilled technological knowledge, may appear to be in opposition to high quality patient care" (p169).

He goes on to talk about how technology may be daunting for patients and that previous research describes a boundary between person and machine. Radiographers need to strike a balance between using the equipment for maximum efficiency and caring for their patients. Murphy (2006) in his literature review of technology in radiography describes this as the paradox of imaging technology and patient care, scientific objects and humanity.

In summary the equipment and technology can become a social object and is as much part of the workplace culture as those working in the DID.

2.7. Medical dominance.

The role of medical dominance (the dominance of the medical profession over other health care professionals) is explored by Lewis et al. (2008). They carried out semi-structured interviews with radiographers in Australia to explore the ethical commitment of radiographers and the influence of medical

practitioners. The disadvantages of just using interviews are that actually what occurs in practice is not being investigated and so there is no way of verifying that what is said in the interview is trustworthy. Observation of practice could highlight other issues not uncovered in the interviews. The article looks at ethics, the professional culture of radiography and its close working relationship with medicine. The development of the profession of radiography has been largely controlled by medicine (Adams and Smith, 2003; Decker and Iphofen, 2005; Lewis et al., 2008). The workplace environment can be controlled through restricted autonomy. "Historically, nursing and radiography are excellent examples of occupations affected by subordination" (Lewis et al., 2008 p91). This is due to the history of each profession in which doctors made decisions about the treatment a patient would receive and the nurses/radiographers would carry out their orders without question. Lewis et al. (2008) found that radiographers were resigned to subordination and tended to rely on others for decision-making. There was, however, a tension between taking responsibility and not being given responsibility with some of the participants commenting that they may not have been given responsibility because they chose not to make decisions. However, this tension is not true for all DIDs. Within the UK advanced practice and role development within radiography is much more advanced than Australia. Therefore, the medical dominance is changing. There does however appear to be a 'glass ceiling' for role development and opportunity for DRs which varies between DIDs and according to the interests of the radiologists working within each DID.

Smith (2006) also talks about medical dominance in his PhD thesis, particularly focussing on the origins of radiography as an occupation and its links to radiology. However, radiographers are moving away from this reliance on and dominance from medicine with extended roles and advanced practice.

In summary, recently there has been a change from medical dominance. However, the history of the profession still has an impact on how radiographers make decisions and how radiographers develop their practice. This can also be used by DRs as an excuse not to make a decision when they feel uncomfortable.

2.8. Gender.

Like many other allied health professions there are more female radiographers than males. Yielder (2006) states that "medical imaging is female dominated" (p311). Powell (1990) says that this links with the power and dominance of medics as the medical profession is traditionally male-dominated and the associated professions such as radiography and nursing are female dominated.

Figures from the HPC on line register (HPC, 2009) indicate that of the 20,695 diagnostic radiographers registered with the HPC, 16, 390 are female, a proportion of 79%.

Wicks (1998) in her book about professional boundaries between doctors and nurses, and Smith (1992) in her book about emotional labour in nursing talk of

a similar picture in nursing and speak about the sexual division of labour between doctors and nurses. They also point to gender stereotypes and public images of women as nurses. Takase (2005) in her PhD thesis about the public image of nursing agrees with this stereotype going on to say that this could constrain practice.

In summary, radiography is a female dominated profession similar to nursing, which has resulted in some domination from the mostly male medical profession. However, there is no literature about how this gender imbalance within the profession has an effect on the culture or working environment within the DID. Gender may have an influence on the culture and working environment.

2.9. Errors and blame culture.

Mayles (2003) in his commentary about the culture in radiotherapy points out that radiographers need correct training in the use of X-rays to reduce the potential for harm but that a blame culture still exists within the NHS with regard to radiation incidents. Fitzgerald (2001) concurs with this in his literature review about errors in radiology. He indicates high levels of error within radiology and outlines the blame culture in the NHS.

> "While the traditional medical culture of personal responsibility and autonomy of action has certain strengths, it has led to a belief that mistakes should not be made, and that they are indicative of personal and professional failure" (Fitzgerald, 2001 p938).

This makes health care professionals anxious about errors and consequently increases their feeling of guilt should they make a mistake. However, Fitzgerald (2001) points out that "errors fall into recurrent patterns" (p938) and

therefore error traps need to be uncovered in order to prevent similar mistakes in the future. This can be seen in the way that the media reacts to situations where they see that blame can be attributed. It appears that the media just want to blame, and not understand and learn from the situation.

Rix et al. (2003) also comment that there is a lot of repetition of errors in the NHS in their short communication about a radiographic incident. Rix et al. (2003) outline two approaches to reviewing an incident; a person-centred or systems approach. The person-centred approach focuses on failings and weaknesses of the individual and fosters a blame culture. The systems approach accepts that individuals make mistakes and tries to counteract these by systems and procedures. There is still a perception amongst NHS staff that a person-centred blame culture is present, "the person approach remains the dominant tradition in medicine... In an open and just culture, which supports incident reporting, there can be an appropriate use of the systems approach and effective risk management" (Rix et al., 2003 p65). One of the major cultural barriers to the system approach is professional and group allegiances.

Waring (2005) explores the attitudes of medical physicians towards adverse incident reporting in health care, looking at inhibiting factors or barriers to participation. Blame culture inhibits participation in incident reporting. "People are disinclined to be open and honest about their experiences of error because of the deep-seated assumption that they will be found at fault and held individually responsible or punished for the event" (Waring, 2005 p1928). It seems that this view is particularly strong amongst medical staff but less

prevalent amongst other health care staff. We need to ask why this culture prevails and why professionals want to cover up mistakes rather than acknowledge them and move on and learn from them.

In summary, the blame culture in an organisation has an effect on how staff members view errors and how they deal with them.

2.10. Previous ethnographic studies of healthcare professions.

There are other ethnographic studies of the culture within other healthcare professions. Becker et al. (1961) studied medical doctors during their time in medical school. Wolf (1988) studied the culture within nursing on a medical ward. Goransson (2006) carried out a study of emergency nurses in Sweden, focussing on triage. Annandale et al. (1999) also investigated emergency health care in their study of interprofessional working in this setting. Cudmore and Sondermeyer (2007) carried out an ethnographic study in their own profession of nursing.

All of these researchers studied their own professions using participant observation. This was a challenge and Cudmore and Sondermeyer (2007) talk about the tensions of the duplicitous roles of researcher and professional. Each of these studies uncovered the attitudes, beliefs and values of the professional groups (Becker et al., 1961; Cudmore and Sondermeyer, 2007).

Becker et al. (1961) and Wolf (1988) found that professionals have to deal with the tensions of meeting targets and maintaining patient care in the face of reduced staff numbers and increasing service demands.

Professional socialisation, enculturisation and understanding their role within the organisation is outlined, particularly in relation to hierarchies and the role of medics and other professional groups (Becker et al., 1961; Wolf, 1988; Annandale et al., 1999; Cudmore and Sondermeyer, 2007).

Attitudes towards patients from staff are also described. Becker et al. (1961) talks about the categorisation of worthy and unworthy patients, and Cudmore and Sondermeyer (2007) found that nurses discussed deserving and non-deserving patients.

Wolf (1988) describes shared language, abbreviations, jargon and symbolism used by a professional group in communication. She also cites teamwork which Annandale et al. (1999) and Cudmore and Sondermeyer (2007) discuss in relation to the professions studied. Previous experiences are seen as important in decision-making and professionals share their experiences with one another (Sbiah, 1998a; Sbiah, 1998b; Benner, 2001; Goransson, 2006).

In summary, these ethnographic studies within healthcare uncover cultural issues such as the way in which professionals learn how to behave, attitudes, beliefs and values, shared language and symbols, the way in which professionals view their patients and the tensions of dealing with service demands.

2.11. Summary.

The literature review has highlighted the following issues. How workplace culture can influence lifelong learning. The history of radiography and its

protocol driven culture and how this could have an effect on the future development of the profession. The resistance of DRs to change, particularly role development where professional boundaries become blurred. Professional socialisation and how DRs learn to become a DR. The way in which DRs form communities of practice and how these can have an influence on their practice and professional development. CPD and its role within the profession, it can be seen that the culture in a DID does not always promote or value CPD. Research in radiography is evolving and along with CPD will continue to influence the future direction and development of the profession. Management of the DID, the working environment, staff morale and the whole organisational culture in an organisation effects the culture in the DID. Medical dominance still affects DRs and how they work. The blame culture in an organisation affects how staff members deal with errors. Previous medical ethnographies have uncovered attitudes, beliefs and values, shared language, patient professional interactions, service demands and professional socialisation.

All of the literature in this review paints a picture of the NHS, its workplace culture and the radiography profession.

I believe that this thesis explores some of these issues in more depth within the radiography profession. As a DR studying my own profession I have access to the field and I am able to understand the tensions that exist and the role of the DR from my own experience. Ethnography allows exploration of the culture as it is being played out by observing DRs in practice. In this way I

will be able to see if the findings from my interviews occur in practice, something which many of the studies cited were not able to do.

This thesis will make an original contribution to research within radiography, to describe and explore the workplace culture and to make some recommendations about how the profession can move forward.

3. Methodology.

3.1. Introduction.

In this section I will explain and justify my choice of methodology and methods for this study. I will provide a definition and explanation of what ethnography is and demonstrate why it is appropriate for my study. The ethical approval process will be outlined and I will cover how ethical issues were dealt with before, during and after the study. Data collection and analysis will be discussed including how data were produced, recorded and analysed. Throughout this section I will also be looking at my role as researcher in the study.

The reason for my choice of a qualitative methodology is that qualitative research inquires into the meaning which individuals or groups ascribe to a social or human problem; it allows for the exploration of people's thoughts, feelings and ideas (Creswell, 2007). The purpose of my research is to investigate the culture in the DID amongst DRs and in order to do this I need to see the culture from the perspective of those who are a part of it, namely the DRs working in that DID (Crotty, 2005). Quantitative research does not provide meanings, it provides numerical data and hard facts (Bowling, 2004).

Quantitative techniques can be used if the subject is known about, simple and unambiguous and able to be measured in a valid and reliable way (Bowling, 2004). There are quantitative tools that can be used to investigate organisational culture. Scott et al. (2003) provide a neat review of such tools with a particular reference to their use in health care settings. They found 13 suitable instruments which could be used for quantitative assessment of

culture. These tools either adopt a typographical approach where the assessment tool defines the particular type of organisational culture found; or they adopt a dimensional approach which tends to describe a culture according to where it ends up in relation to different variables. The dimensional approach tends to have a Likert scale which respondents use to indicate their level of agreement with statements. All of the tools identified look at employee perceptions about the culture but only a few try to go beyond this to try and examine the values and beliefs that underlie these viewpoints, these include the Competing Values Framework (Cameron and Freeman, 1991) and the Organisational Culture Inventory (Cooke and Lafferty, 1987). Scott et al. (2003) conclude that there is no ideal instrument and that it is difficult to really measure culture in a quantitative way because culture cannot really be quantified as it is more to do with meanings, interpretations and the perceptions of those who are part of the culture. They suggest that one could reject any attempt to measure culture and choose instead a qualitative approach to delve into the meanings. Qualitative methods provide further insight and rich data about the complex issue of culture (Bowling, 2004). Therefore I have decided on a qualitative methodology and approach to my research question.

3.2. Ethnography.

I have chosen ethnography as a methodology because of its link to the study of culture. I wanted to gain an understanding of the culture in a DID using social constructionism and interpretivism (Creswell, 2007). Interpretivism searches for patterns of meaning, describes meanings, and tries to understand the participant's views. This research is carried out in natural

contexts (Gephart, 1999). Constructionism is a form of interpretive research (Gephart, 1999), which states that meaning is not discovered but constructed (Crotty, 2005). Constructionism says that our experiences, history, culture, use of language, knowledge and social action are all interconnected and over time these experiences and actions lead to shared meanings. In our daily lives the interpretation of our actions by others determines the outcome. Much depends on the way we are perceived and represented by others. In this we have little control on the meaning placed on our actions, and to some extent therefore our reputation and the way we are seen. This is due to the way in which our society and others make judgements about us and is the key to constructionism, where meanings and judgements are part of the social group we are part of (Gergen, 1999). I did not want to merely describe the culture as narrative research or case study research would do but rather take the description further to interpret my findings and try to understand the basis of the culture (Creswell, 2007).

Ethnography has its roots in both British social anthropology, where researchers went out to study foreign cultures and in American Sociology (from the Chicago school) which used observation to explore groups on the margins of urban industrial society. The task of these two distinct groups was the same, that of cultural description (Brewer, 2000). Since then ethnography has developed and moved into other spheres such as education, health care and social work. In many respects ethnography is really the most basic form of social research; it bears a close resemblance to the ways in which we make sense of the world around us (Hammersley and Atkinson, 1991).

Ethnography involves the study of a particular social group or culture in naturally occurring settings (McGarry, 2007; Hobbs and May, 1993). Spradley (1979) maintains that the aim of ethnographic research is to gain an understanding of the culture from the point of view of the members of this community. Hobbs and May (1993) concur with this saying that ethnography is a way of telling it like it is, describing the culture observed and looking at the social world being studied as seen from the inside. However Davies (1999) argues that the researcher's understanding of the culture forms the basis of the findings, which come from the information provided by informants. Denzin (1997) agrees with this point saying that "there can never be a final representation of what was meant or said – only different textual representations of different experiences" (p5). There are many interpretations and representations of an experience. The researcher has their own interpretation of an event and the participants may have a different interpretation. The researcher attempts to uncover the participants' interpretation and draw their own conclusion about the event using the many versions that exist to try to make sense of the experience.

In order to document their findings the researcher needs to become part of the culture being studied to gain understanding and insight. It could be argued that I was already part of the radiography culture as both a practitioner and educator. I would argue that yes I am part of the larger radiography culture as I am a DR. However, in order to understand the culture within the DID at Anytown I needed to become part of the smaller radiography culture there. In ethnography the researcher needs to have direct and sustained contact with those being researched within their cultural setting. This involves

watching what happens, listening to what is said and asking questions (O'Reilly, 2005). So, although I already understood and was part of the overall culture within radiography, in order to carry out my study I needed to spend time within the DID in order to become immersed in the culture there.

Hammersley and Atkinson (1991) advocate the study of a culture in its natural state, as undisturbed by the researcher as possible. Ethnography should also be carried out over a period of time in order to reduce the impact of the researcher's presence on the situation being studied. "People can sustain an act or maintain their best image only so long" (Wolcott, 1999 p49). The researcher's presence may alter behaviour for a short period of time, but this will only continue for a while as 'real' behaviour re-emerges. Nieswiadomy (2002) suggests an adjustment period is needed in order for behaviour to return to normal as people can only maintain an act for a short while.

Ethnography employs several research methods, which link findings together (O'Reilly, 2005) and allow for what Richardson and St. Pierre (2005) call crystallisation. Richardson and St. Pierre (2005) argue against the more quantitative term 'triangulation' saying that this term suggests that there is one objective truth that we are trying to plot through the use of different research methods. They propose that in undertaking qualitative research we need to acknowledge that there are many dimensions in which to approach the world (just like a crystal has many facets and dimensions) and that what we see depends on our viewpoint and perspective. As researchers we are trying to understand a little more about the different facets of the crystal as there is infinite variety. In utilising different research methods we gain a greater

understanding of the world and different people's viewpoints. The heart of ethnography is the 'lived order' or the way in which members of a group construct, enact, do and inhabit their daily world (Allen, 2004a). Ethnography utilises three main research methods; observation, interviews or focus groups and the study of written documents or artefacts (Hammersley and Atkinson, 1991; Brewer, 2000). The observation is normally carried out over a period of time with the researcher becoming a participant. Interviews or focus groups can either follow the observation or be carried out during the period of observation to explore issues further. Documents used within the culture are studied to find out about how information is recorded and transmitted within that culture, this can also take place during the period of observation to gain a greater insight into the culture. Ethnography is iterative-inductive research, and is an ongoing simultaneous process of theory building, testing and re-building (O'Reilly, 2005). Ethnography is usually fluid and flexible; a reflexive process with a broad topic and some guiding questions (O'Reilly, 2005).

The written product of an ethnographic study should be a systematic and thorough account of the culture, which persuades the reader about its plausibility (Atkinson, 1990). The ethnographer uses thick description (Geertz, 1973) and their interpretation to paint a picture of the culture studied. Thick description is a detailed description of an event which includes the situation and context and allows the reader to begin to interpret what has been observed. An ethnographic study must take account of the context in which the data was gathered. All data is contextual and is grounded in the moment of its existence (Denzin, 1997). The data are collected in context, within natural surroundings and must be contextualised with clear descriptions

of the occurrences in order to make the account believable (O'Reilly, 2005; Atkinson, 1990).

Clifford and Marcus (1986) say that an ethnography can only be partial and incomplete as it is only the perception of the researcher. They say that the researcher's voice pervades and situates the analysis. An ethnography therefore tries to provide some insight into the culture being studied but through the lens of the researcher. The written product includes those occasions that the researcher is a part of and "ethnography is historically determined by the moment of the ethnographer's encounter with whomever he is studying" (Clifford and Marcus, 1986 p51). Denzin (1997) also talks about whose interpretation is presented by the ethnographic text and the crisis of representation and legitimisation. This is about how the researcher can produce a legitimate account of an event based on what they have seen and what the participants have seen because we all interpret events differently and "there can never be a final representation of what was meant or said" (Denzin, 1997 p5). So, how can we tell who's interpretation of the event is the 'correct' one? The ethnographer tries to record the many voices of the participants and add their own interpretation and meaning. Davies (1999) takes this further by saying that the ethnographer tries to get to the meanings behind social action, and the cultural knowledge of the informants is the basis of the researcher's understandings and interpretations. The researcher tries to tap into the rules and assumptions of the participants in order to understand the culture.

3.3. Other ethnographic studies.

The culture of the DID has its own elements, relationships and symbols to observe and to interpret. Similar studies have been carried out in other professions; medicine (Becker et al., 1961), nursing (Wolf, 1988; Cudmore and Sondermeyer, 2007) and teaching (Hill, 2006). These ethnographic studies looking at the culture in different professional groupings have pointed me in this direction and provided useful insights and information relating to this study.

Although carried out over 40 years ago the study by Becker et al. (1961) made observations about medical doctors and the culture within medicine which are still true today. This study was able to encapsulate the world of the medic and their attitudes, values and beliefs through observation and interviews. The researchers became part of the medical student group throughout their training and were able to observe and informally interview medical students to explore the culture within medical education. The researchers joined in with the education programme, the clinical placements and the social scene of the group.

Wolf (1988) carried out an ethnographic study of the culture within nursing on one ward. She used observations and interviews with staff over a 12 month period. As a nurse herself Wolf was able to understand some of the 'cast of characters' and she understood some of the aspects of the ward culture, for example the way in which the culture on the ward was supportive as a team and the staff worked together against the rest of the hospital, or so it seemed at times.

Cudmore and Sondermeyer (2007) carried out an ethnographic study in their own profession of nursing within their own area of work. They speak about "viewing the same environment from a different perspective" (p26) and trying to shake off your own enculturalisation and professional socialisation to see things from an outsider's perspective. They speak about inhabiting the 'borderlands', the 'slash' between clinician/academic, a perspective that I can closely identify with. They speak about some of the tensions of a duplicitous role, but also about the rewards of looking at your own profession from a different perspective and the rich data that can be obtained from this type of study.

Hill (2006) carried out an ethnographic study as a participant observer in education. He carried out the dual roles of teacher and researcher. He was a true participant in the field, continuing to teach as well as carry out his research and found this difficult. He speaks about the tension between these roles and how they were both complex and competing. Hill (2006) argues for constant reflection throughout the process in response to issues of identity, power and authority.

These studies all provide information about carrying out an ethnographic study within a healthcare setting or within the researcher's own area of practice. There are many common themes such as how to gain access to the field, how to carry out observations and interviews, and how to be reflexive during the process.

3.4. Ethics and ethical issues.

Ethics in research was developed after the Second World War. The Nuremburg war crimes trial brought into the public arena the way in which human subjects were treated by German scientists, where participants were often subjected to barbaric experiments. The Tuskegee syphilis study in the 1950s and 1960s involved the withholding of effective treatment from infected participants. These occurrences ensured that ethical guidelines were developed for research in order to protect participants from harm (Tzamaloukas et al., 2008).

Ethics in research involves the application of ethical principles which include the way in which the research is designed and conducted. The main principle is that participants should not be harmed as a result of participating in the research (Bowling, 2004). All participants should give informed consent in order to participate and this consent should be written (Bowling, 2004). Ethical approval must be sought for all studies using human subjects which take part within the NHS.

Ethical approval was needed for this study from the University of Salford Research Governance and Ethics Committee, the local research ethics committee (LREC) and the research and development committee (R&D) at the NHS Trust where the study took place. In order to gain approval I had to complete the University proforma and the online National Research Ethics System (NRES) form. I attended the LREC meeting where my study was discussed and was able to answer questions regarding ethical issues that

were relevant to my study. Ethical approval for the study was finalised in May 2008 and the Ethical approval letters can be found in Appendix 1.

3.4.1. Access to the field.

Long et al. (2008) state that it is not easy to gain access to a hospital for research purposes.

Due to my position as an educator at the university I was fortunate to be on first name terms with all of the radiology managers in the region that provided clinical placements for diagnostic radiography students. I was also able to attend a regular meeting held between the regional managers and the university where placement matters where discussed. It was at this meeting, with permission from my line manager that I presented my research idea, hoping to find a manager who was willing to host me as a researcher.

The manager of Anytown NHS Trust volunteered to host me and was very interested in my study. It was therefore relatively easy for me to gain access to the DID. Allott and Robb (1998) cite this as a distinct advantage of doing research in your own area of practice. I considered myself fortunate to have a good relationship with the gatekeeper to my research field.

However, because of the way in which I gained access to the field I was aware of coercion and made every effort to ensure that participants made an informed decision about taking part in the research and did not feel obliged to do so because the manager had given permission for me to work in the DID. Roberts (2007) discusses coercion in her paper about carrying out research

on her own students. She was aware of the pressure to consent to be involved in the study for students as she was their lecturer. However, she points out that from her experience the students were not easy to coerce into divulging information that they wanted to keep private. I agree with this notion, and I believe that the staff in the DID had the opportunity not to participate in my study and they also had many opportunities to discuss subjects that they did not want me to hear about or be aware of outside of my earshot.

Johnson (2004) speaks about openness in research and gives examples of past research that was covert in which participants were unaware that they were part of a study. This is not permissible now due to stringent ethical requirements and ethics committees are very keen that researchers consider their position and do not misuse any power that they might have over the participants to coerce them into taking part.

3.4.2. Informed consent.

Before the study I had to resolve the issues of informing the staff about the study and gaining consent. It was important that staff members were not coerced into taking part. Therefore I spoke to all of the staff in the DID at their staff meeting and provided each one of them with a participant information sheet and my contact details. After staff members had time to read about the study they were asked to complete the consent form. Staff members were able to opt out of the study at any time. Participant consent forms were collected by one of the superintendent DRs. Copies of the participant information sheet and consent form can be found in Appendix 2.

The LREC asked me to ensure that patients gave their consent for me to observe them. This was achieved by placing a notice in the patient waiting room in the DID and asking each patient being observed for their permission, this was practiced by other similar studies such as May-Chahal et al. (2004). It is difficult to obtain consent from everyone and Johnson (2004) says that "ethnographers in complex social situations are rarely able to gain consent from everyone they meet" (p253). This did not achieve informed consent for the patients but no patient details formed part of the study as my primary focus was on observing the DRs and their practice. The LREC were satisfied with this level of consent for patients as I was abiding by my professional code of conduct with regards to patient information.

3.4.3. Ensuring no harm.

Before the commencement of the study I had to decide how I would deal with the observation of mal-practice. It was decided in discussion with the manager of the DID that I would intervene if necessary and that I would report any instances to the manager of the DID. This was difficult for me as I did not feel that this was my role as a researcher to 'police' the department. Dixon-Woods (2003) says that "ethical issues about when and how to intervene are not uncommon" (p326), and other writers speak about the dilemma of observing bad practice and if intervention is necessary (Hobbs and May, 1993; McGarry, 2007).

Johnson (1997 and 2004) discusses why intervention is a difficult concept for researchers in the clinical environment. He calls the lack of intervention by a

researcher the 'wildebeest perspective' (Johnson, 1997), referring to nature documentaries where the person filming does not intervene when the predator stalks and eats the vulnerable newborn and ageing wildebeests as it is argued that intervention would disturb or intervene with nature. Johnson (1997) argues that in some cases researchers should perhaps have intervened, for example to relieve pain. He goes on to state that it is useful to consider where interventions or their avoidance can be planned for or predicted in research, but this does not reflect the turmoil of the real and messy world of clinical research. When considering when I might have to intervene I realised that it was not as simple as saying I would intervene when I thought that the patient or my colleagues were in danger or at risk. This was fine in terms of radiation dose, but there could be other occasions where there could be a small risk or maybe where I felt that the care of the patient was not optimal. I needed to decide where I would draw the line. As a DR I needed to abide by my professional code of conduct and this provided some guidance. Johnson (2004) calls this an 'intervention dilemma' and suggests the development of a personal 'bottom line' of care below which the researcher feels they must intervene. For me this was if I felt that anyone could be physically harmed unnecessarily as a result of an interaction. It is important to report practice that is less than satisfactory in research, because although this may be controversial, without reporting such incidents future practice cannot improve and the profession can move forward.

Thankfully I did not have to intervene at any time during my research, although I did observe some less than satisfactory practice with regard to communication with patients. As an educator I found if difficult to stand by

and observe these interactions, I wanted to take the DR to one side and help them to reflect on and learn from what had happened, but this was not my role as a researcher.

During the study there needed to be a mechanism for staff to withdraw from the study. It was agreed that should a staff member wish to withdraw they could either inform me as the researcher or they could inform one of the superintendent DRs in the DID who would tell me. If a staff member decided to withdraw from the study all data relating to them would also be removed from the study.

From the 45 staff members working in the main DID at the time of the study, only two did not consent to being observed. Agreement and consent to participate was therefore strong with 43 out of 45 staff consenting. During the study none of the members of staff withdrew from the study. So it was relatively easy to manage to avoid observation of the two staff that did not consent.

3.4.4. Confidentiality.

The names of staff were not used during the study and staff members were referred to by their profession or title, e.g. nurse, DR, administrative assistant. Each member of staff was also numbered, e.g. DR 1, nurse 2, and student DR 4. None of the staff knew their numbers, so the data remained anonymous. I kept the list of staff numbers separate from the rest of the data collected.

It was decided, in discussion with the manager of the DID that I should wear a DR's uniform for the duration of the observation. It was felt that this would be less intimidating for both staff and patients and I would fade into the background more easily. Coffey (1999) says that the researcher should have an acceptable appearance which includes dress, demeanour and speech. Hammersley and Atkinson (1991) agree with this and think that the personal appearance and impression created by the researcher can influence data collection.

I was prepared for staff members to be un-co-operative and in fact at the initial meeting with the staff some of the DRs felt that I might be there to spy on them, a finding which Roper and Shapira (2000) shared. I dealt with this by explaining the reason for my presence and by showing them what I would be doing and trying to ensure that DRs were comfortable with my presence each time I carried out a period of observation. Dixon-Woods (2003) also warns against hostile staff members when observation is part of the research. There was a potential for hostility due to my educator role. I felt that some of the DRs were a little wary of me to begin with. One of the newly qualified members of staff who had been a student at my place of work did not give consent to participate originally, but after a few hours of me being in the DID, she changed her mind and agreed to participate in the research. In reality I did not experience any hostility from DRs whilst I was in the DID, in fact I was welcomed into the team fairly quickly and none of DRs appeared to be worried about my presence.

I ensured that all staff had the opportunity for support should any element of the study cause them distress. The LREC wanted to ensure that if any staff member became upset as a result of participating in my study that support was available for them. This support was provided by the Occupational Health department at Anytown NHS Trust, where the study was carried out. The Occupational Health department were aware of my study and staff members were able to self-refer to Occupational Health should they wish to discuss distressing issues that may have been uncovered through participation in the research. Thankfully this was not needed.

3.4.5. Situational ethics.

I decided to record my observational data in a notebook which I took with me into the DID. I left my notebook on the work surface in the DID when I went into the X-ray rooms. I wanted staff to realise that I had nothing to hide from them and I told them that they could read my notes at any time. I wanted the staff to feel that I was being open and honest with them about what I was observing. Costley and Gibbs (2006) talk about the issue of caring for participants when they are known to you and how you can try to instil trust. They use the expression 'moral trusting' and say that the instillation of trust helps to promote the researcher's integrity. I wanted the participants to know that I wasn't there to check up on them or to write down everything they were doing to see if they were doing their job properly. In this way I hoped to reduce the feeling that I was a 'spy'.

Assigning numbers to staff members protected their identity. The numbering system was used for the whole study.

3.5. Sample frame.

This section provides some perspective on my sample. The study was carried out in one NHS Trust and there were 258 acute NHS Trusts in the United Kingdom in 2007 (Price and Le Masurier, 2007). This DID was selected because the manager of the DID volunteered to host me and was very interested in my study which made access to the DID straightforward to arrange. The DID was also chosen because it was an average sized DID, close to where I live and work and it was somewhere where I had not worked as a DR.

The DID employs 25 FT and 27 PT DRs, making 44.69 WTEs in the main department (general and A&E X-ray, CT, MRI and RNI). There are also six FT and two PT clinical support staff, and 17 FT and ten PT non-clinical, administrative support staff. I observed 43 DRs from the 45 working in the main DID, and carried out interviews with eight DRs, one student DR and one member of the clinical support staff team. According to the HPC online register there were 20, 695 DRs registered in 2009 (HPC, 2009). I wanted to observe as many members of staff from the DID as possible and the interviewees were selected in a purposive manner in order to represent the different grades of staff within the DID. The observation is discussed in more depth in section 3.6.1 (p83), and the interviews in section 3.6.2 (p91).

3.6. Methods.

In order to study the culture three main research methods were decided upon; 1) observation within the DID to identify issues, 2) interviews with staff

members from the DID to further explore the issues highlighted by the observations, and 3) examination of documents used in the DID. The research was carried out in one DID in a medium sized acute NHS teaching hospital by one researcher over a period of seven months. The purpose of the research was not to seek generalisable results but to gain understanding and meanings about the culture in which DRs work (Creswell, 2007).

Kennedy (1999) advocates this type of research using observation in a practice based profession as it allows for the collection of rich data, "observation helps to make sense of the world around us and guides our decisions and actions" (p56). In a profession such as diagnostic radiography there are many complex actions and interactions which can be explored through observation. Ethnography can illuminate hitherto covert patterns of behaviour and decision making (Kennedy, 1999). It is very difficult to explain how professionals behave or why they make certain decisions without seeing these in context. Ethnographic research helps to contextualise behaviour and decision making; it seeks to understand people's actions and their experiences of the world through observing the participants in their natural settings (McGarry, 2007).

This study of the culture in a DID explored how DRs made decisions and behaved, and looked at whether this culture is the source of human behaviour or the result of it (Crotty, 2005). Within a cultural setting, meanings and actions are based on the meanings and actions of others. These can be modified through observations of and further interactions with others (Crotty, 2005). This can be positive; for example DRs may learn how to deal with

difficult patients by observing their colleagues, or it could be negative; for example DRs may follow the example of a colleague in being rude or unhelpful to a referring clinician. This is an example of situated learning (Lave and Wenger, 1991), where members of a community of practice learn from one another in practice about their professional role. This study looked at how DRs interacted with one another, with other health care professionals, with students and with patients. In order to be understood people try to make their actions meaningful to others (Ellen, 1984).

The whole approach was inductive, in that theories were built and tested throughout the study. Findings were explored as the study progressed with the analysis beginning almost as soon as the data was collected.

3.6.1. Observation.

The study commenced with a one week period of observation within the DID in order for me to gain an understanding of the way in which the DID functioned. At the beginning of the observation I started with an initial mapping of the DID (Hodgson, 2002). O'Reilly (2005) suggests that a plan or description of the field (in this case the DID) assists in description of the culture. May-Chahal et al. (2004) and Wolf (1988) provide floor plans of the departments/wards in which they carried out their research which can be referred to by the reader to gain an understanding of the location of different events described in the research. The space and place is an important part of the data as it helps to contextualise the findings. The floor plan of the department can be seen in Figure 1 (p26).

Observation involves sound, movement, touch, and smell. Edvardsson and Street (2007) argue for a "sensate field researcher" (p25) who is able to "accurately document and reflect on the use of sensate material" (p30). Using this form of sensate observation allowed me to reflect on how the body is central to any care environment.

After the initial one week observation I continued to observe on a regular basis. The observations for this study were undertaken for one day per week, this day was altered each week and I also observed for two evenings (after 5pm), this was in order to observe the DID in its natural state. After the first week of continuous observation I had a feel for how the DID worked and I decided that I would like to spend some time in each area of the DID, in order to see different staff and working practices. After a few days in the DID it become apparent that the Area C viewing area, between rooms five and six was the 'hub' of the DID (see Figure 1, p26). I therefore decided to spend more time observing there than in any other place within the DID. My time spent observing in each area of the DID can be seen more clearly in Table 3.

Table 3: Observation time in each area of the DID.

Area C	Area B	Room 3	CT	A&E	Room 1	MRI
11/8/08 AM	12/8/08 AM	12/8/08 PM	13/8/08 PM	14/8/08 AM	20/8/08 AM	2/10/08 AM
11/8/08 PM	20/8/08 AM	3/9/08 AM	29/8/08 PM	14/8/08 PM	24/11/08 AM	23/10/08 AM
13/8/08 AM	9/9/08 AM	24/11/08 PM	2/10/08 PM	18/9/08 Eve		
20/8/08 PM	6/10/08 PM		11/11/08 AM	23/10/08 PM		
29/8/08 AM	11/11/08 AM			6/11/08 Eve		
3/9/08 PM						
18/9/08 PM						
23/9/08 AM						
23/9/08 PM						
6/10/08 AM						
17/10/08 AM						
17/10/08 PM						
6/11/08 PM						
17/11/08 AM						
17/11/08 PM						
24/11/08 AM						

AM 9am-1pm, PM 1-5pm, Eve 5-10pm.

I took on the role of 'observer as participant' from the four researcher roles in observation outlined by Gold (1958). I considered being a participant observer, the advantages of working as a DR and also carrying out the research would mean that I would really be a part of the team with my own patients and my own work to discuss. However, I decided to discount this idea for this study as I felt that if I was working as a DR I may miss out on interactions between staff as I could be alone in an X-ray room imaging patients.

Because two members of staff had not consented to be observed I had to ensure that I did not observe them. This was done by consulting with the work rota in the DID to see where these DRs were working. It was quite simple to avoid the areas where they were working and this was easy to manage on a day to day basis.

During the period of observation I took field notes in a small notebook. I used these field notes to record my observations and also my own thoughts and feelings about what was going on. Allan (2006) says that the researcher's thoughts and feelings are also important data. In my notes I differentiated between my actual observations and my thoughts on those observations. I felt that it was important to record how I felt about what I had observed. When I typed the observations I used italics to represent my feelings. I recorded actions, interactions, what people said, how they behaved, what was happening and what I saw. Along with this I recorded the location in which these events occurred and the context.

The field notes that I took were personal to me and I chose what to record (Coffey, 1999). This involved my decisions about what was significant (Agar, 1980; Anspach and Mizrachi, 2006). Abbott and Sapsford (1997) state that the interpretations, values and interests of the researcher are a central part of the research. My ideas obviously directed where I observed and what I observed. It may be that I could have missed some elements of the culture and events that occurred. Although often when I wasn't observing in one particular area I would still find out about events in other areas of the DID as staff members would discuss what had been going on during break and lunchtimes in the staff room.

Observation prompts the researcher to consider what it means to be a part of the group being studied (Allen, 2004a). During observation I had to balance the dual roles of professional and researcher. It was useful to have some sense of shared cultural knowledge. Holland (1993) believes that undertaking research in ones own field of practice reduces the 'culture shock' and means that the researcher is more sensitive to the participant's behaviour. However, she also says that there is a danger of data being overlooked because of familiarity with the study area. During the whole period of observation I was aware that my insider status could contribute to me missing out on important information (Styles, 1979), as I would not necessarily see something as strange or unfamiliar and record this in my notes. I needed to fight familiarity when carrying out my observations and look at the environment with a sense of strangeness (Coffey, 1999). I needed to try to see the DID as through the eye of an outsider, which is often termed the etic perspective (Fetterman, 1989). I had to try and view the environment from a different perspective

(Cudmore and Sondermeyer, 2007). I needed to be aware of over familiarisation (Bonner and Tolhurst, 2002), so every day I endeavoured to look around the department for something new that I hadn't seen before or written about. This way I tried to keep my observations fresh and tried to see the environment in a new light.

It was difficult at first to adjust to being in the department but not working there. As a practitioner I had a feeling of guilt about not having a clinical role and being able to assist the radiographers. This was particularly true when the department was busy and all I wanted to do was to take the next X-ray request form and image the patient. Rudge (1995) also highlights this tension and talks about the ethics of assisting in the practice area when your role there is to be a researcher and to observe. Johnson (1995) says that health care professionals as researchers will feel torn between the needs of the patients and the researcher role.

The whole study took seven months with the observation taking place over a period of four months. I hoped that over this period of time I began to fade into the background and participants were able to behave as they would if I were not present (Ellen, 1984). Some of the DRs forgot that I was there, whilst others did not appear to consider the reason for my presence and treated me as a member of the team. I was spoken to like any other DR working in the DID. I quickly became part of the culture of discussing the work whilst doing it (Decker and Iphofen, 2005). DRs asked me questions about their work and I was able to assist with tasks such as moving and handling. Whenever a DR asked my opinion about something I had to think

about the answer in terms of the role I was playing. As an educator I would normally use the opportunity of a question being asked to impart knowledge and teach. As a practitioner I would normally help to problem solve and answer the question if I could, but as a researcher I had to think about how I could respond and if I should. In truth I tended to behave as a practitioner in these situations and offer advice or answers and assist in problem solving. However, my educator persona was always there in the background, wanting to teach and to assist the DRs in their practice, development and learning.

In studies of this nature the "Halo effect" often occurs (Asch, 1946) where participants being observed want to be seen in a favourable light. Other writers describe the "Hawthorne effect" (Bowling, 2004; Vehmas, 1997) where participants are aware of being observed and alter their behaviour. Some of the radiographers engaged me in the team, and spoke to me frequently, whereas others were quite happy to ignore me. However, after a week of my period of observation many of the staff members included me in the team and admitted to forgetting why I was actually there. This reinforced my understanding that over a period of time the researcher will begin to fade into the background and participants will behave as they would if the researcher were not present. Ellen (1984) says that this is true after a short period of time and Bowling (2004) suggests that the "Hawthorne effect" fades over time. It is however important to acknowledge that it is not possible to be completely overt; people may forget that the researcher is present and it is not always easy to explain fully the nature of the research (O'Reilly, 2005). It is difficult to balance the need to be open and honest with the need to fit in and become unobtrusive. I think that I was able to fit in easily because I am a DR. I had

all my knowledge and background information about the profession and the DID, and I knew exactly what went on there.

My decision to wear uniform helped me to integrate into the department. However, this prompted thoughts about how I felt to be wearing uniform and yet not being involved in the care and imaging of patients. As professionals the wearing of uniform is a powerful statement and it helps us to take on our professional role and persona. I had not realised just how powerful the wearing of a uniform can be to a person and how it was part of my own professional identity. For me, when I wear the uniform I am a practitioner and when I visit the DID without my uniform I am a visitor or an educator. So wearing the uniform but taking on another role, as a researcher was a real challenge to me and to my identity. I struggled with the fact that I was dressed as a radiographer but was not 'being' a radiographer. This is a concept referred to by Cudmore and Sondermeyer (2007) as being there but not being there. It has been argued that without true immersion in the culture the researcher cannot provide an authentic account (Allen, 2004a). Therefore I spent the whole of each day of the observation with staff including eating lunch and taking tea breaks in the staff room. I felt that this helped me to become integrated into the team and recognised as a part of the staff group. I was conscious that I did not want to appear aloof and someone who did not wish to engage with the DRs. Chesney (2001) describes the veils of research and how the actual researcher (the person) can be hidden. She advocates being open, honest and up front, not hiding the real you. Chesney maintains that in order to accept the credibility of the research the reader must be able to scrutinise the integrity of the researcher.

I was able to use both structured and unstructured observations during this time. Structured observations were carried out through the observation of one particular DR over a period of time documenting their movements, actions and interactions (May-Chahal et al., 2004) (see Appendix 3 for an example). "Observation is pivotal to the way in which skills are passed on and things are known" (Grimshaw and Ravetz, 2005 p74). Unstructured observations were carried out in significant areas of the DID, which included the main viewing area, the staff room and the patient waiting areas. When observing in these locations I made field notes about actions, behaviours and interactions which were observed (please see Appendix 4 for an example of my field notes). I chose the locations for the unstructured observations after my initial survey of the DID where I tried to determine the main areas of the department where interactions between staff took place and areas which provided me with useful and meaningful data. I was able to observe a cross section of the staff in the DID.

Another challenge was being able to fit in, in order to cause as little disruption as possible (Bonner and Tolhurst, 2002). I intended to become a familiar part of the work setting within the DID in order that staff members continued to work as normal. Coffey (1999) encourages carving out a space to be, a location that allows for observation but does not intrude on events. To this end I selected places to stand that were as unobtrusive as possible. This often involved standing in a corner in the viewing area or behind the lead glass screen of an X-ray room where I could see what was going on but I wasn't in the way of the DRs and did not interrupt their work flow.

During the period of observation I learnt my own style. When I started I found it difficult to decide what to record and how to record it. I developed a note form with my own abbreviations which I typed up as soon as I reached home when the work was still fresh in my mind. I used the drive home to reflect on my day and did a lot of thinking in the car. I was keen to formally record the data as soon as possible after the event to reduce the chances of inaccuracy.

At the commencement of my observation I entered the DID with a feeling of nervousness. Despite knowing some of the staff and having presented my research to them and gained consent, I was still worried about how I would be received and perceived. The first day of my research was a bit like the first day in a new job, I wasn't sure what to expect.

I continued with the observations until I felt that I had reached data saturation. Data saturation is described as a point when no new information is generated (Creswell, 2007).

3.6.2. Interviews.

Interviews were used following the observations to explore issues further. I was able to interview a cross-section of staff from the DID. For my study ten interviews were carried out with key informants, these were; the manager of the DID, a superintendent DR responsible for the main DID, the acting CT superintendent DR, an advanced practice senior DR, two senior DRs, two junior DRs, one imaging assistant and one student DR. The key informants

were identified during the observations and I selected these people in order to gather meaningful data. This was a purposive sample (Bowling, 2004).

My key informants covered a cross-section of the staff within the DID (see Table 4). I knew that this was what I wanted to achieve, so that I had a mixture of background, experience and points of view. When considering who to interview I first asked all of the participants for consent to take part in the interviews, this was part of the initial consent form, so I was aware which staff I was able to select (see Appendix 2). During my observations I considered which members of staff were more vocal and able to express their opinions. I chose these people in the hope that I would obtain different ideas and rich data.

Table 4: The key informants chosen for the interviews.

Research number	Gender	Role and Grade	Length of time worked at Anytown
DR1	Female	Band 5 radiographer, works in general department	7 months
DR4	Female	Band 6 radiographer, works in general department	2.5 years qualified and 3 years as a student
IA4 (imaging assistant 4)	Female	Band 3 imaging assistant, works in general department	19 years
Manager	Male	Band 8A. Manager of DID	26 years
SenDR2	Female	Band 7 advanced practitioner, fluoroscopy	7.5 years
SenDR7	Male	Band 6 radiographer, works in general department	4.5 years
SenDR12	Female	Band 6 radiographer, works in general department	15 years
Stud2 (student 2)	Female	3rd year student	2.5 years as student
SuptDR1	Female	Band 7 radiographer, responsible for main department	11 years
Supt DR4	Female	Band 7 radiographer, acting CT superintendent	7.5 years

The interviews were semi-structured and explored further the issues highlighted by the observations as recommended by Coffey (1999) and Johnson (1995). The interview schedule can be found in Appendix 5. I was able to seek clarification about issues from the participant's perspective. Different staff groups were chosen with the intention of choosing some leaders and some followers. Leadership has an influence upon the culture (Wolf, 1988), and I wanted to see if leaders and followers have different perspectives. As a practitioner I was aware that there is a structured hierarchy within the DID with different staff being responsible for and leading teams of people.

The first interview I conducted did not take as long as I expected. I had thought that the interviews would last for about one hour each; however they ranged in length from 17-43 minutes. For the first few interviews I think I talked a bit too much and had to work on speaking less. It is evident from the transcripts that in the later interviews I spoke a lot less. I had no issues with the digital recorder; I found it easy to use and easy to transcribe the data from. It had a good integral microphone and picked up the voices clearly. It was a little challenging to organise interview times to fit in with the demands of the service in the DID. I carried out the interviews in an office within the DID which was away from the main clinical area of the DID and away from noise. It was necessary to unplug the telephone and the intercom to avoid interruptions. Staff being interviewed were given time to participate by the management of the DID, which I was very grateful for.

The interviews were carried out over a period of one month. This was two months after the observation had finished, which gave me some time to reflect on the observations before carrying out the interviews. This was useful as I was able to carefully consider my interview questions and schedule.

The questions used during the interviews were open and exploratory. These questions were based on the themes extracted from the observations and also explored further some of issues uncovered by the literature review. The interviews were recorded onto a digital recording device and transcribed verbatim. The data produced were contextualised and I began to look at issues and events from the insider's or emic perspective (Fetterman, 1989). Validation of findings can be done by examining all of the data from a study to test the findings. Results can be confirmed by using data from different sources and this helps to give authority to the findings (Brewer, 2000). However, it is important to acknowledge that the final ethnographic report is not 'the truth'; rather it is the researcher's representation or the researcher's 'voice' (Allan, 2006). As a researcher I am aware of my influence on the research and on the data. Agar (1980) says that the researcher needs to consider who they are as part of the research. Coffey (1999) concurs saying that the fieldwork is personal to the researcher, the data collected depends upon the researcher's interpretation and memory and it may challenge the researcher's sense of identity. I am also aware that ethnography cannot be objective (McGarry, 2007).

I was able to look for patterns of behaviour, action and interpretation (Fetterman, 1989; Hodgson, 2002). The interview data were analysed using a

thematic analysis to look for common themes. Themes were categorised and coded (Spradley, 1979), this is discussed further in the data analysis section.

3.6.3. Examination of documents.

In my original plan I had decided to look at the documents that were kept and used in the DID. My rationale for this came from Prior (2003) where he suggests that documents can be full of concepts, assumptions and ideas and that "documents are produced by humankind in socially organised circumstances" (Prior 2003, p4). I thought that I could look at policies and procedures used by DRs and be able to look at how their documents provided information about how the DID was structured (Allen, 2000). I also wanted to find out a bit more about the hierarchy and power relationships within the DID (Becker et al., 1961; Lofland and Lofland, 1984).

However, it became apparent early into the study that DRs rarely use these documents in their work. In fact, most of the information was conveyed verbally. DRs were more likely to ask their colleague about something than look it up or find the policy/protocol. This finding is shared by Hunter et al. (2008) in their ethnography of a neonatal ward. As a practitioner I was aware of this element of the working culture. When visiting or working in a DID, either as an educator or practitioner I often find that the DRs will ask me something about their work rather than refer to a document.

It was decided that the study of documents would add very little to the research and so I decided not to study documents as I felt that they were a very small part of the culture.

3.7. Leaving the field.

At the end of the data collection, when the observation and interviews were completed I was sad to leave the DID. I felt that I become part of the team, and had made some lasting friendships with some of the DRs. Chesney (2001) reflects on this issue at the end of her study, she says that she found it hard to leave a group that she had become a part of. Coffey (1999) takes this further saying that researchers always have an emotional involvement with their first set of participants, calling them the 'first love'. She says that "ethnographers rarely leave fieldwork totally unaffected by their research experience" (p7), and that this is rarely talked about in the research texts, it is a "silent space" (p8) where experiences are not spoken about. I felt that I had left a team that I had become a part of and left a group of friends.

However, I was also optimistic that my research would have a positive effect on the DID. I had asked a lot of questions, and challenged the DRs to consider their practice and the reasons behind the decisions they made. Simmons (2007) talks about affecting change through research, and proposes that the researcher can challenge the reasons for behaviour through questioning, resulting in changes in practice.

3.8. Data and data analysis.

The act of capturing data may shape what is said and in turn influence how it is analysed (Miles and Huberman, 1994). This is an interesting point that is made in much of the literature about data analysis. I have therefore tried

wherever possible to present the raw data in the text so that the reader can review my interpretation of the data presented.

The way in which qualitative research is presented should allow the reader to be confident about the rigour of the work. A good way to do this is to allow the research participants' voices to be heard. There are therefore many quotations presented within the results chapters to illustrate the themes.

Data analysis is the process of systematically searching, arranging and making sense of the data (Creswell, 2007). The data gathered from observations and interviews were analysed to look for common themes, patterns of behaviour and actions (Fetterman, 1989). During data analysis the original research question and subsequent questions were re-visited to look for answers. It is important to acknowledge that I may see things differently from those actually involved in the situations I observed. It is also important to acknowledge that data analysis is not a distinct phase of the research process; rather data collection and analysis are simultaneous and continuous processes (Bryman and Burgess, 1994). The collection and analysis of data are closely linked and each shapes the other in an iterative process.

Dey (1993, p30) says that data analysis is "a process of resolving data into its constituent components to reveal its characteristic elements and structure", and O'Reilly (2005, p184) says that "one of the first stages of analysis is moving from a chronological order to another kind of order". All of the data collected were organised and checked for spelling, clarity and detail. The

data were indexed into word documents for easy reference. Each file was printed out onto paper to allow for easy reading and coding. I decided not to use a computer software programme, preferring to use paper copies of the data. I found it easier to place paper files alongside one another and compare information. Dey (1993) says that data should be well managed to allow for good analysis to occur.

All of the data were read through several times. The data were reviewed line by line in detail until a concept emerged. O'Reilly (1995) says that when you sort through and read through the data it becomes more familiar to you and you become more familiar with it. When reading the data I had to make decisions about what I felt was important and needed to be included in the thesis and what could be discounted. These decisions were based on my own interpretation of events from the observational data and my interpretation about what the participants were telling me during the interviews. As I read through the data I began to create codes. Coding is a key process as it begins to create order and serves to organise the data (Bryman and Burgess, 1994). I decided not to restrict the number of codes that I used, Hammersley and Atkinson (1991) advocate this approach as it does not place any limits on the data. I found it difficult at first to 'label' the data with codes that matched what was being said. It was difficult to select the exact words to use to name these codes appropriately.

Hammersley and Atkinson (1991) also suggest a 'funnel shaped' structure within data analysis, so that the analysis becomes more focussed over time with the large number of small codes being grouped together to form a

smaller number of themes as the analysis progresses. The coding structure should evolve inductively from the data. So, as I continued with the coding of the data I was able to begin to group together some of my codes as I made decisions about which codes were describing the same or similar ideas.

As I decided to work with paper copies of the data I used coloured pencils to highlight the data, with one colour per code. In this way the data were visibly coded for easy reference. In the end there were 19 themes that emerged. After the data were coded I grouped together all of the data corresponding to each theme in a results matrix, an example of which can be seen in Table 5. This allowed for quick reference to the data linked with each theme. This enabled me to see what I had selected as 'evidence' of a theme. From this matrix I was able to view the quotes I had chosen and decide what was relevant to the research.

Table 5: A matrix of one of the codes and the data associated with it.

DRs' views about research, CPD and evidence-based practice

Location of evidence	Quotes/evidence
Observation 11/8/08 Area C	Thought that I was "mad" to be doing research and that research was only for a select few
Observation 12/8/08 Area C	Discussion about CPD and the HPC audit – what is CPD? Do we have time? Happy just to come to work and do the job then go home, who needs CPD?
Observation 14/8/08 A&E	Some DRs are not interested in promotion or CPD – lack of responsibility
Observation 9/9/08 Area B	DR4 came and spoke about her link grading interview. Showed us her CPD file. This prompted a discussion about CPD and how time consuming it was. There was a mixed response to CPD in general. Discussion followed about CPD being linked to promotion. CPD is a bore, a pain and as for reflection!!
Observation 9/9/08 staff room	Talking about CPD and reading Synergy (the magazine), some DRs admitted that they rarely read it, whilst others did read it

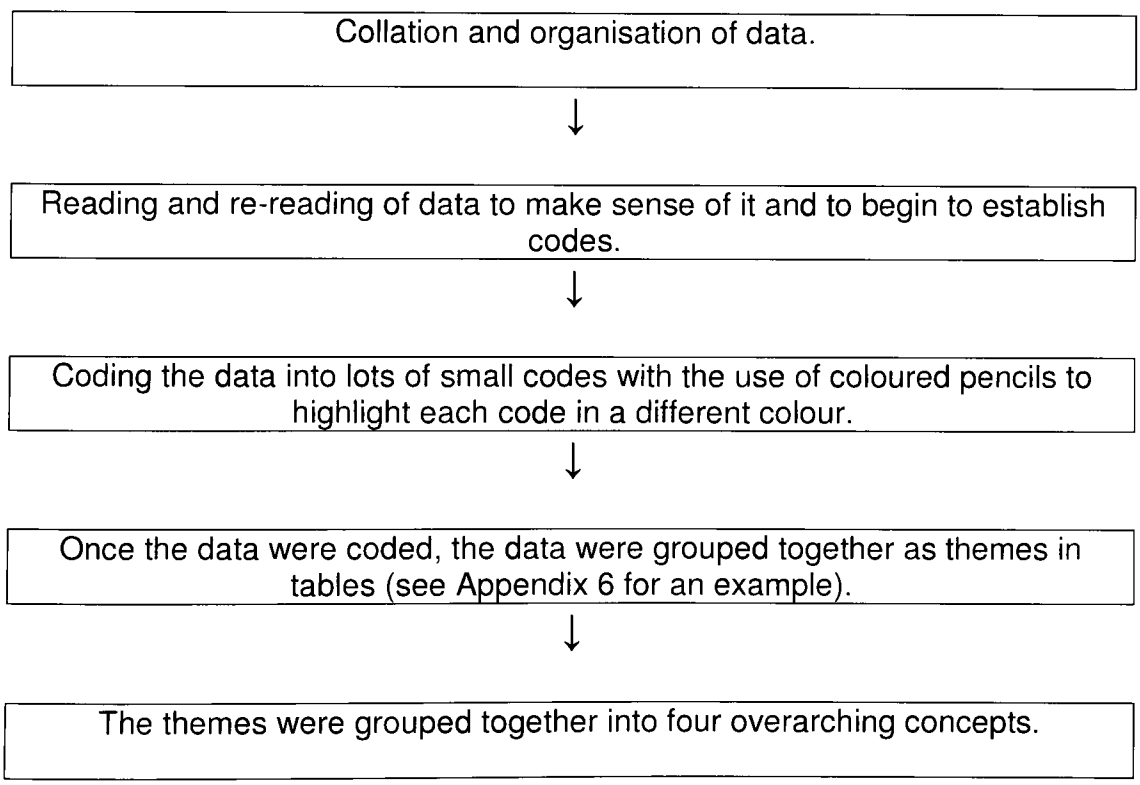
Observation 6/10/08 Area C	DRs discuss departmental protocols for certain examinations and why certain projections are taken, *evidence based practice?*
Observation 23/10/08 MRI	SenDR16 had been to a confidentiality study day yesterday and discussed what she had found out during the day with SuptDR3
Observation 24/11/08 Area C	DR5 and DR6 talk about CPD and preceptorship, these DRs are newly qualified. They have some anxiety about CPD and what is expected of them, they also feel that they do not have time to 'do' CPD.
Interview with SenDR7	we're always reflecting on our practice. so you know you do learn but in the sort of life journey through your job you know you're always reflecting I think on your practice and I think that's what determines you know how you behave.
Interview with SenDR12	it's difficult sometimes to learn more isn't it because you haven't then got time to perhaps look at an image and think well what is that or I'll look that up later and then you forget
Interview with SuptDR4	you don't get a lot of time to as I said look at your images and and sort of from a learning point of view it can be quite really quite a difficult environment to work in um
Interview with SuptDR4	we've just sorted to start to get together at lunchtimes as well to spend some time sort of helping each other with sort of you know moving on with some anatomy and pathology cause as I said before it's something we don't get a lot of time to do you know and we sort of sit down together and view some interesting cases every now and again

Where data corresponded with several themes the data were placed in the table for all themes it linked with, for example on several occasions during interviews DRs talked about the use of dark humour linked with not becoming involved with patients, which I had listed as two separate themes. I found it difficult at times to decide which theme some of the data fitted into. This was a particularly difficult decision, as I felt that some data were important to the study but it was difficult to explain why or exactly what the data were saying about the culture in the DID. I found it especially difficult to know how to deal with the use of humour. One particular participant used humour a lot in her interview; however she was very honest about her feelings and was able to

laugh at herself. I decided that she was using humour as an emphasis, so that I would take note of what she was trying to say.

Once the process of data ordering was complete it allowed for the data, in coded form, to be grouped together under overarching concepts. I decided on four overarching concepts. Overarching concepts are used to group together similar codes to provide more order and structure to the data. Some of the themes were relatively easy to group together, whereas others were not. There were also several themes that had links between them, and bridged the overarching concepts. The flow chart below (Figure 4) illustrates the stages of data analysis that I followed:

Figure 4: Data analysis flowchart



Hammersley (1992) says that there are many descriptions and explanations of one phenomenon. Allan (2006) says that the comparison of data allows for

the emergence of multiple realities and in the data analysis my point of view and that expressed by the participants was compared and contrasted. I had to make decisions about what I deemed to be important from what I had observed and heard. Ethnographers should "...claim no more for the account than what it is, a partial, selective and personal version" (Brewer, 2000 p44). My personal interpretation resulted in the coding, grouping and labelling of the data. As a researcher I had adopted a critical attitude, to look for and seek alternative explanations, keep methods and data in context, and represent the polyphony of voices (many versions of truth) (Brewer, 2000).

3.9. Reliability and validity.

Within qualitative research reliability and validity tend not to be used to measure the quality of the research as these are quantitative measures. Instead the following terms can be used; credibility, transferability, dependability and conformability.

3.9.1. Credibility.

This can be achieved through prolonged engagement with the participants, allowing time to fully understand the group, build trust and rapport, and gain honest responses (Polit and Beck, 2004).

3.9.2. Transferability.

This can be achieved by providing a thick and thorough description in order to contextualise the data. This allows the reader to make inferences about contextual similarities (Polit and Beck, 2004).

3.9.3. Dependability.

This measures how stable the data are over time. The researcher should use an audit trail to record how the data were collected and how conclusions were reached (Holloway and Wheeler, 2002).

3.9.4. Conformability.

This acknowledges the influence of the researcher and does not hide it. However, the researcher should still aim to provide data that accurately represents the participant's responses.

3.10. Member checking.

Member checking involves giving the data and its interpretation back to the participants for them to check the meaning that you have ascribed to the data, and look at the accuracy and credibility of the account (Miles and Huberman, 1994). I used member checking through one of my supervisors who is an experienced DR with ten years clinical and 20 years educational experience in radiography. He has experience of working in and with a range of DIDs and DRs across the UK. He looked at the data to see if he recognised the descriptions and interpretations as a form of member checking. This increased the authenticity and reliability of the findings and helped to reduce researcher bias.

3.11. Limitations.

There are some limitations with my choice of methodology and methods. The main limitation is that this was a small study, carried out in just one DID. My selection of when and where to observe, who and when to interview had an

influence over the findings (Manis and Meltzer, 1978; Hammersley and Atkinson, 1991). The choices made ultimately influenced the data gathered. It was not possible for me to observe all of the workings of the DID and I may have missed out on important interactions. I was only able to work with the data that I had been able to gather. Participants may have chosen to withhold information (Roberts, 2007), or not provide a true picture of the situation (Wolcott, 1999). Participants may have felt threatened and not felt able to reveal information (Allen, 2004a).

This topic is relevant and useful to the future direction of my profession. Diagnostic radiography needs to move its research forward and qualitative research in radiography is needed to gain further understanding about the profession (Adams and Smith, 2003; Ng and White, 2005).

4. Results

The next four chapters deal with the overarching concepts that were identified to be significant during the data analysis. In each of the following chapters the four overarching concepts and themes associated with them will be described and analysed. The credibility of the themes was enhanced as they were supported by one my supervisors who acted as a member checker.

The four overarching concepts and the themes are shown in Table 6 with the overarching concepts shown in bold text. When looking at the data four more meaningful themes emerged and these are referred to as key themes.

These four key themes were more prominent in the data and following discussion with my supervisor, who acted as a member checker it was felt that these were familiar anecdotally through experience and deserved more in depth analysis. These four key themes appeared more frequently throughout the study, from both the observations and the interviews. The four key themes demonstrated new knowledge about the culture within the DID and were not found to be discussed in depth in the literature. The four key themes are; involvement with patients, use of dark humour, blame culture and visible product. The four key themes are shown in italics in Table 6.

In each of the following chapters the results of the study are presented and analysed with links being made to other literature. Johnson (1995) states that a good ethnography tells a story, supported by the data, making relevant comparisons with other literature. In some sections lengthy quotes are used or order to provide a detailed explanation and to give the context for the data.

Each chapter begins with a key theme, which is discussed in more detail and then each of the smaller themes are introduced.

Table 6: The overarching concepts and themes.

Relationships with patients	**Relationships with colleagues**
Involvement with patients Task focussed interactions Time pressures and waiting times Avoiding confrontation Categorising patients	*Use of dark humour* Team working and communication between DRs Interprofessional relationships DR – radiologist relationships Discussion and story telling Role modelling
Structure and environment	**Characterising the role of the DR**
Blame culture Structure, organisation, routine – the way things are done Workflow Behaviour in different areas	*Visible product* DRs' views about research, CPD and evidence-based practice Extended role and barriers Dealing with radiation

Some of the themes were interlinked, and these links are evident throughout the next four chapters.

My views and interpretation of the data also forms part of these chapters. As Allan (2006) says, the ethnographic report is the researcher's interpretation of the data and Creswell (2007) says that "good research requires making these assumptions, paradigm and frameworks explicit in the writing of a study" (p15).

5. Relationships with patients.

There were five themes which related to the relationships DRs have with their patients. Under this heading there was one key theme, 'involvement with patients' for which I have provided a substantial amount of supporting data. There are four smaller themes which are also dealt with in this chapter in less depth. In addition the matrix with all of the associated data for the key theme can be seen in Appendix 6.

From this study it was found that the relationship that DRs have with their patients is very different from the relationship between other health care professionals and their patients. The DR spends a relatively short period of time with their patient and the interaction is task focussed, i.e. the production of a diagnostic image. Murphy (2006) agrees, saying that this could be seen to be quite different from the more long term caring relationships that other healthcare professionals appear to have with their patients. The concept of a caring relationship and what it actually means continues throughout this chapter.

5.1. Involvement with patients (key theme).

Involvement with patients was considered to be a key theme from the data and this theme links with many others. All of the data associated with this key theme can be found in Appendix 7. It appears from the data that DRs try not to become emotionally involved with patients.

Because of the nature of the job DRs often see patients with complex health issues. DRs are involved in diagnosis and may be the first health care

professional to identify the patient's problem, for example finding a malignant tumour or serious illness. It appears that in order to protect themselves the DRs remain detached from the patient in these situations and prefer not to think about the patient's diagnosis and what implications this might have for the patient.

However, on occasion the patient has an effect on the DR, and they have an emotional reaction to what they see or are involved in. I discussed an incident where this had occurred with SuptDR2.

> *"Discussion with SuptDR2 about the 'patients that get to you'; she had been in CT, and had just scanned a 39 year old woman with a caecal primary tumour and liver metastases. She talked about emotional involvement with patients and the fact that sometimes the patient just 'gets to you'."*
>
> ***Observation 18/9/08, A&E***

During this conversation SuptDR2 indicated that the patient was not aware of the seriousness of her condition and that she found this hard to deal with as a professional. She also said that because the patient was close to her age she was able to make a connection to the patient and she found this challenging to deal with. This aspect of the DR's role can be difficult, especially when the diagnosis is serious. SuptDR2 said that the patient 'got to her' and that she had been upset after the patient had left, but whilst the patient was in the department she had managed not to cry. The management of emotions and expected behaviour is discussed later on in the chapter (p111).

Another conversation about being involved in initial diagnosis and the difficulties associated with this occurred in MRI. Whilst I was observing there a patient came for a brain MRI and it was discovered that the patient had a

brain tumour. The DRs discussed how they felt when going back into the scanning room knowing that something was wrong.

> *"It can be a challenge to go back to the patient after an examination knowing that something is wrong and not alarming the patient. The DR had to go back into the scanning room to assist a patient off of the table; the DRs had observed that the patient had a brain tumour and that it was quite serious. When the DR returned to the scanning room she commented on how hard this was to do as she knew something was wrong."*
>
> ***Observation 2/10/08, MRI***

All of the DRs in MRI that day agreed that this was an aspect of their job that they found it difficult to deal with. However, they would rarely see that patient again, so although it would be difficult at the time they did not need to maintain their emotional guard for too long.

It is normally the case that a DR will not see a patient more than once and so can remain distant. However, a DR may see a patient several times if the patient is in hospital for a while. When something happens to that patient, there is a different dynamic and the DR may become upset. I observed this when I was in the DID.

> *"The DRs talk about a patient who has been in hospital for several weeks and has had many X-rays, he is a real character but has taken a turn for the worse, DR4 went to X-ray him this morning and the ward staff had called in his relatives. The staff on the ward were upset and the DRs were also concerned for him, they had become attached to the patient."*
>
> ***Observation 17/10/08, Area C***

On this occasion some of the DRs had developed an emotional bond with this patient, as they had seen him more than once and he was a memorable character, so they had let their emotional guard down. As a result of this they became upset and after the discussion that I observed one of the DRs went to the staff room, as she did not want to cry in front of her colleagues.

As a consequence of this, DRs develop coping mechanisms to deal with these issues. A lot of the DRs I observed and interviewed talked about not becoming involved with their patients as a coping strategy for dealing with some of the nasty things that they have to deal with.

> *"We do see some awful things sometimes don't we?"*
>
> ***Interview with SenDR2***

IA4 in her interview talked about this detachment from the patient and how she used it to cope;

> *"you know you get through it and otherwise you know you'd just get so depressed and so stressed you well you wouldn't cope, you have to you know not umm take it to heart to much... if you take it on board it's not healthy no no".*
>
> ***Interview with IA4.***

So IA4 sees that taking the problems of patients on board is not a healthy thing to do, and that it would have a negative effect on her. It seems that the culture within the DID was such that emotional involvement and displaying of emotions was not acceptable behaviour. The demonstration of emotion would perhaps be seen as a sign of weakness.

In providing an alterative explanation for this in her interview, DR1 considered that not becoming involved with patients was due to the quick turnaround of patients in the DID. She says that she prefers to only see patients for a short period of time because it reduces her involvement with them;

> *"I prefer to just kind of one in one out really because I know that if I kind of get involved then I'd find that really difficult especially like if anything happened to them."*
>
> ***Interview with DR1.***

So she sees that the quick turnaround of patients works to her advantage as she does not have the time for emotional involvement. She goes on to say

that she doesn't like to see patients in pain and likes to keep things light so that she doesn't dwell on things and become upset or emotional.

> *"...yeah cause I think it's it's I mean it's never nice to see patients sort of like in pain it just keeps it sort of it is it is I think to an extent trying to lighten you know the kind of to keep it light rather than well you try not to get involved because you get if you let yourself get drawn into like that situation you then become involved and then you get upset and you start thinking like about your own kind of mortality and things like that and it's not a good like train of thought really especially like 'cause you could do that every day you know if you let yourself get involved with every patient who came through the door, yeah I think sometimes it's just to keep it light and just to keep yourselves detached from what's going on 'cause we don't wanna get like I mean I personally would rather not get involved in that kind of thing."*
>
> ***Interview with DR1***

Perhaps the DRs see this as part of their professional role to be detached. It seems that DR1 does not like to think about her own mortality and prefers to keep those thoughts away from her work. Allott and Robb (1998) refer to this as the 'cloak of professionalism' where the profession hides behind their professional role, and uses this as a way to hide their own emotions and take on what they consider to be a 'professional approach' to a situation.

There also appears to be an expected way to behave regarding emotions within the DID. DR4 also talks about emotional involvement with patients in her interview and says;

> *"well you can't cry you can't well you can't show any emotion".*
>
> ***Interview with DR4.***

I wondered why it was that DR4 felt that she couldn't show any emotion. Why is it assumed by DRs that they can't show any emotion in front of their patients? Is there some sort of unwritten rule about this? This is what is perceived by DRs as expected behaviour, passed on from one generation of DRs to another. It was also as if DR4 was seeking reassurance from me that

what she thought was the correct way to behave was something that I agreed with too.

The manager also discussed this in his interview;

> *"but umm you're actually dealing with things that are well if they happen to you would be the stuff of your worst nightmares but because you're in a front line hospital you've got people coming well if you've just had a severe road traffic accident or have got the worst forms of cancer, the things that you absolutely dread and umm it's not actually you know even as I'm sitting here talking to you umm about it on that level well it almost feels uncomfortable but you'd normally cope with it by saying or by treating it a little bit more lightly."*
>
> ***Interview with Manager.***

The manager obviously found this subject difficult too, although he could not really explain why and at the end he dismissed this uncomfortable topic by saying that he preferred to deal with this by treating it a bit more lightly. This is an occasion where DRs often used dark humour to lighten the situation, a theme that will be discussed in more detail in the next chapter, in section 6.1 (p137).

Goleman (2004), in his book about emotional intelligence calls these unwritten rules about behaviour 'display rules'. He says that these are rules about how we show our emotions and to what extent in different social situations. He says that we learn these display rules very early on in a new situation from those already there, so in this case DRs learn how to behave from other DRs. Cherniss (2000), another writer about emotional intelligence says that "emotional intelligence has as much to do with knowing when and how to express emotion as it does with controlling it" (p7). So it appears to be a display rule amongst DRs to not become involved with a patient's emotions and not to show their own emotions. It may also be a method of self-

preservation to distance oneself from the emotions being displayed. DRs obviously believe that they should not show emotions to their patients and yet for some other health care professionals it is normal practice and acceptable behaviour to cry with the patient and to share their emotional distress, for example a nurse working in a hospice. I was speaking about this to one of my friends who is a nurse working in a local hospice and she told me that staff members often sat and cried with patients, and that it was quite acceptable to do this. In her opinion this helped the patients to deal with their grief and to share their feelings. However, a hospice is a very different environment from a DID and there are very different work pressures.

It may be possible that DRs are not used to crying or showing emotions at work and this is why they feel uncomfortable. I explored this further with the participants and the general feeling amongst the DRs was that they were there to do a job and that the patient would not expect them to cry or to become upset.

> *"I'd rather not sort of get involved because it just becomes you then become emotional about it and then you're umm not able to do your job properly are you? We are here to do a job and that's what the patient expects of us."*
>
> ***Interview with DR1.***

DR1 assumes that this is what the patient expects of her, but she has no evidence that this is the case.

It was also felt that DRs do not know their patients and their situations well enough to be able to engage with their emotions on any deep level.

> *"We're detached from that person we don't know that person I mean just this week I've had a few in MRI I've had a few cases there which are enough to make you cry you know that awful I mean we haven't*

joked about them but I think that you've got to try and remain detached cause if you get involved you'd never get through the day."

Interview with Stud2.

The participants felt that emotional engagement was not part of their role and that this was best suited to a professional who would spend more time with the patient and get to know them and their situation in more detail, allowing them to empathise. DR1 says that because DRs do not have the time to build up a rapport with their patients, they do not really get to know them well, and she contrasts this with therapeutic radiographers;

"Radiotherapy radiographers have the time to build up a rapport and a relationship with patients whereas we don't have that."

Interview with DR1.

It appears from this statement that the culture in the DID is different from the culture in the radiotherapy department. DR1 is saying that because of time pressures and the short interaction that a DR has with their patients it is not appropriate for a DR to become emotionally involved with that patient as they do not know the patient and their situation well enough. However, in radiotherapy because the therapy radiographer sees the patient regularly they are in a position to get to know the patient and can therefore become more involved with the patient on an emotional level.

Generally DRs say that they feel uncomfortable about talking about life and death matters. SenDR2 says that detachment from the patient is a way of coping with what has been observed and preventing it from getting to you. Stud2 says that she has learnt to become detached from patients in order to get on with the job and says;

"I think that you've got to try and remain detached 'cause if you get involved you'd never get through the day."

Interview with Stud2.

Stud2 felt that involvement could be negative and could have a detrimental effect on her work and that she had learnt to behave like this by observing qualified staff members.

In her interview SuptDR4 agrees with the notion that lack of involvement with patients is a coping strategy;

> *"I think in CT it's a way um I think radiographers kind of detach themselves a little bit from patients as a sort of coping mechanism 'cause obviously we see a lot of very poorly patients um you know and and it can be you've often done the scan and you know you've seen something on there that patient has no awareness of whatsoever yet um so as a way of sort of coping with that you kind of detach yourself a little bit from them so that you don't get too involved with them".*
>
> ***Interview with SuptDR4.***

Along with detachment from the patient DRs also use dark humour; joking about patients and their misfortunes to cope with situations. This will be explored further in the next chapter 'relationships with colleagues', in section 6.1 (p137). DRs do, however, talk about when the patient 'gets to them', meaning when they experience an emotional response to a patient and their situation. This is perhaps when they do become more involved with the patient and let their guard down. When I was observing, the DR and the team were quite upset by one patient in particular.

> *"because the patient had had a stroke he was unable to express his feelings. One of the members of staff had experienced something similar with one of their relatives and found this particularly upsetting. It would be fair to say that this particular patient got to all of those present, including myself."*
>
> ***Observation 12/8/08, Room 3.***

It was obvious that his patient was distressed but couldn't express his feelings as he had just had a stroke. One of the team was upset after the examination was over and it became clear from talking it through with her that she had recently faced a similar situation with one of her relatives. A situation that can

bring back memories or personal experiences is more likely to have an effect on those involved and this was certainly the case on that day. SuptDR3 also mentioned the role that memory has to play in emotional reactions. We discussed this when I was observing in MRI.

> *"SuptDR3 talks about how certain things can evoke emotions in staff, e.g. a patient similar to a relative or a reminder of a situation you have faced."*
>
> ***Observation 2/10/08, MRI***

SenDR2 explains this feeling of being affected by something that happens at work in her interview;

> *"I'll go home and think about it and have a cry in certain situations and a lot of it you can relate to your own life as well yeah if there's a patient that's similar to one of your relatives yeah and it suddenly hits you".*
>
> ***Interview with SenDR2.***

On several occasions during my observations DRs spoke to one another about patients that had 'got to them' and had upset them. This can be described as emotional labour. These were usually patients with terminal conditions. Other studies talk about the concept of detachment and emotional involvement. Becker et al. (1961) see it as hardening oneself to face suffering and death, quite a harsh description, whereas Benner (2001) describes distancing oneself from patients, so an active decision. Taylor and White (2000) describe the concept of professional detachment and Decker and Iphofen (2008) see this as a coping mechanism. Goleman (2004) takes these ideas a step further and talks about the concept of empathy distress. Empathy distress is when one person picks up on another person's distress and joins them in it. He says that medical staff try to guard against empathy distress by toughening themselves up and by developing coping strategies so that they do not become upset.

This illustrates just how complex the caring relationship is. DRs try not to become involved because they feel that detachment is a method of self-preservation and allows them to continue to do their job. DRs hide their actual emotional involvement with the patients behind their exterior of 'not becoming involved'. This is learnt behaviour where they see the behaviour of others and learn to behave in the same way as an act of self-preservation. DRs shy away from emotional involvement because they feel that they cannot make a difference to the patient's situation or diagnosis. This is all tied up in the DR's emotional intelligence and their management of their emotions.

Bar-On (2006) defines emotional intelligence as being concerned with effectively understanding oneself and others, relating well to people, and adapting to and coping with the immediate surroundings to be more successful in dealing with environmental demands. Bar-On (2006) suggests that emotional intelligence can develop over time and that it can be improved through training, programming, therapy, and experience. Goleman (2004) says that emotional intelligence allows us to be attuned to the feelings of those we are dealing with. He also gives examples in his book of when health care professionals chose to ignore how their patients are reacting emotionally, even when they are dealing with their physical condition. This can become an issue if the medical professional continues not to take note of how their patients are feeling and becomes too insensitive. The DR needs to guard against insensitivity and pick up on the patient's emotional cues; this may be an important part of the interaction and the patient's future management.

It appears that the DR hides behind their professional role and uses the busy nature of their role to dismiss their lack of involvement with their patients.

5.2. Task focussed interactions.

The relationship between a DR and their patient is a significant part of the DR's work and role. It was clear from the observations that DRs are very 'task focussed' in their interactions with their patients.

> *"DRs speak to patients using short interactions; but need to give clear instructions."*
>
> ***Observation 29/8/08, Area C.***

> *"The conversation is task focussed, DRs give a clear explanation to the patient about the scan, preparation, injection and contrast."*
>
> ***Observation 13/08/08, CT.***

The DRs were focussing on the task, rather than the person. In his interview the manager re-iterated this point and stated that;

> *"a radiographer sees a patient in a different way to a nurse... a patient to a radiographer is perhaps more of a technical challenge."*
>
> ***Interview with Manager.***

The manager also said in his interview that;

> *"the interaction between a radiographer and a patient is far more goal focussed than with a nurse whose primary role is to care for the patient."*
>
> ***Interview with Manager.***

The manager appears to be saying that the radiographer has goal-focussed interaction with the patient. The radiographer is concerned about the product of the interaction, the radiographic image and consequently it may appear that they do not care for the patient in the same way that other health care professionals care.

Murphy (2006) says "The role of the radiographer, in an area requiring highly skilled technological knowledge, may appear to be in opposition to high

quality patient care" (p169). It seems that the DR has to both understand and use the equipment to produce a diagnostic image (product) whilst at the same time interact with the patient, in order that the image produced is useful for diagnosis (process). As early as 1978, these two seemingly contradictory roles of the DR were noted by Fengler (1978), who said that the DR needs to have both a technical and psychosocial ability in order to look after their patient. McKenna-Adler (1990) agrees with this notion and claims that DRs carry out two potentially conflicting roles, both technologist and carer. He calls this a technology-humanism dualism.

Interestingly Kayser-Jones (2002) in an ethnographic study of a nursing home found that nurses' interactions with patients in this environment were also very task focussed and that nurses were more concerned with caring for the patients' physical needs and carrying out caring tasks than speaking to the patients and caring for their emotional needs. So this task focussed way of working may not be unique to DRs and may be to do with the involvement the professional decides to have with the patient. For example, some professionals may make a conscious decision to maintain a distance between themselves and the patient, whilst others may be happy to have more emotional involvement with the patient. The perception of a caring role appears to be more to do with the emotional involvement that a professional has with their patient than the task focussed nature of their role.

So what is caring, and why is it that the DRs in this study do not perceive their relationship with the patient to be a caring one? There are many definitions in the literature about what caring is.

Barnum (1998) sees caring as having three discrete aspects:

1) taking care of another person by actions that look after their bodily needs,

2) having an emotional investment in the patient's well-being, the emphasis here is on emotion and attitudes rather than actions,

3) being careful and precise, protecting the patient from harm, which is about attitudes but not necessarily emotions.

Benner and Wrubel (1989) state that caring must arise from a connectedness with another and that the carer has an emotional investment in the patient.

Widmark-Petersson et al. (1998) divide caring into two main elements:

1) expressive: focussing on the affective dimension, caring about a patient,

2) instrumental: focussing on comfort and defined as caring for a patient, or physical care and treatment.

All of these definitions see caring as involving both actions and emotional involvement. It appears that the area of emotional involvement is where DRs do not necessarily engage with their patients. Their relationship with the patient involves actions and is more concerned with the instrumental aspect as defined by Widmark-Petersson et al. (1998) and being careful and precise as defined by Barnum (1998). Caring is a very difficult concept to define, as some may also see technical competency as being caring toward the patient (Bolderston et al., 2010).

In 1979 Goldin defined caring in relation to diagnostic radiography as;

> "Providing emotional support, explaining the procedure in a manner the patient can understand, permitting the patient to express emotion,

> actively listening to a patient's concerns and responding in an empathetic manner and recognising the patient as a unique individual rather than just another case" (Goldin, 1979 p194).

It seems from this study that the emotional support element of the DR's role was not prominent and that DRs do not have the time to actively listen to a patient's concerns.

DRs seem to learn to be 'task focussed' from one another, and they perceive this to be the quickest method of getting through the workload by concentrating on the task in hand, producing the radiographic image, rather than considering the patients and their needs. This is an example of learnt behaviour where DRs learn the way to interact with patients by observing and then copying others. The DR or student new to the environment will create an understanding of what is happening on the basis of the interactions they see (O'Reilly, 2005).

5.3. Time pressures and waiting times.

Because of the nature of their role the DR has a very short period of time to spend with each patient. Therefore DRs need to create an instant rapport with their patients;

> *"the DRs established a connection with their patients very quickly, they would do this as the patient was welcomed into the examination room by beginning a conversation, establishing a rapport and deciding on how best to speak to the patient. For example, humour was used with some patients and not with others."*
>
> ***Observation 11/8/08, Area C.***

Bolderston et al. (2010) agree with this, saying "the short, single patient visit to an imaging department necessitates highly accelerated rapport-building" (p205).

After introducing themselves to the patients, DRs speak to their patients giving a quick but clear explanation of the procedure;

> *"The DR would explain the procedure in a quick, clear and easy to understand manner, giving the patient information about what to expect and whilst doing this prepare the patient for the examination."*
>
> ***Observation 12/8/08, Room 3.***

Here the DR is trying to save time by making the explanation to the patient quick and easy to understand along with preparing the patient. Carrying out the task whilst explaining the procedure to the patient gives the patient very little opportunity to ask questions. It may be that the patient feels the need to remain silent and that the DR's body language is such that patients comply rather than delaying the examination by asking questions.

IA4 in her interview acknowledges the short time spent with patients and says;

> *"there isn't many places that you know you have an opportunity perhaps to chat perhaps because you're only seeing them for a short amount of time... it can be a bit like a sausage factory sometimes and they are coming and going quite quick* [sic.]*".*
>
> ***Interview with IA4.***

IA4 felt that this was not right, and that as a member of staff she should be able to spend more time talking to patients, particularly if they felt worried or anxious. However, she acknowledged that due to work pressures and expected behaviour she could not do this.

DRs really feel the time pressures and DR1 talked about this in her interview;

> *"it's difficult sometimes to kind of sort of have a chat... it's just being polite and getting on with it really, get them in and get them out".*
>
> ***Interview with DR1.***

This was said with some sadness, and a sense of loss. Booth (2008) thinks that the need to keep the department running when it is busy appears to be the greatest predictor of communication behaviour.

On the same subject Stud2 stated that;

> *"the relationship between a radiographer and the patient is very short lived because obviously you're not spending that much time with the patient".*
>
> ***Interview with Stud2.***

Stud2 was a third year student at the time of the interview and she had picked up that DRs were not expected to spend much time with their patients.

The DRs felt the time pressure and appeared to be constantly weighing this up against the care and attention that they could provide for their patients.

> *"I often feel quite guilty saying you know trying to hurry them up you know 'cause I really do want to listen but obviously you know well the pressure of workload makes you not have or give them the time that they probably need."*
>
> ***Interview with SenDR2.***

There is an increasing demand on the imaging service within the NHS (Price, 2008a). Booth and Manning (2006) found that time pressures have an impact on the way in which DRs interact with patients. They studied DR – patient interactions using transactional analysis. The majority of interactions were practitioner-centred with the DR taking control in the way that they spoke to the patient.

> "Radiographers, who are working in fast-paced/short-staffed settings that place an ever increasing emphasis on processing as many patients in as shortest time possible, have begun to deal with patients in what they perceive to be the most efficient manner" (p280).

This allows the DR to manage their time more effectively. This can be achieved by the use of closed questions, focussing on the technical aspects and giving verbal commands. I can relate to this as a practitioner and can remember doing this with my patients. Booth (2008) suggests that when departments are busy, speed and efficiency appear to be more important than good communication skills, an observation I agree with.

Theodosius (2008), in her book on emotional labour in nursing talks about the constant balance between patient care and the volume of work. She carried out a long-term observational study on a ward. She says that nurses have to multi-task because there is always a lot going on, no time to leave, and lots of demands on the nurses' time. She describes the feeling of guilt that the nurses have about not getting everything done and leaving people waiting. It appears from this study that the DRs also share this feeling and that many of them feel guilty about keeping patients waiting and so they develop strategies to see as many patients as possible in the time available.

The DRs interviewed talked about how their relationship with the patient is unique as such a lot occurs during a short space of time;

> *"it is very unique in that short space of time, very different from other professions I feel you know we have to deal with things in such a short burst."*
>
> ***Interview with SenDR7.***

The DR greets the patient, explains the procedure, positions the patient, takes the images, gives the patient instructions and sends them on their way all within a few minutes. This often means that DRs have a set patter of speech with patients, with set questions and a set order in which they do things;

> *"DRs carrying out routine imaging examinations used a set 'patter' and use the same words and expressions when talking to patients. They also used set questions and a set order in which they carried out tasks. I started to think about why they worked in this way, was it to do with examination protocols or was there more to it?"*
>
> ***Observation 12/8/08, Area C.***

> *"I find myself saying the same things over and over again to the patients."*
>
> ***Interview with Stud2.***

It may be that the use of a set patter of speech and systematised practice may be linked to the protocol–driven nature of diagnostic radiography. DRs

may work in this way in order that they do not forget to check things with the patient and to ensure that they carry out the examination correctly, and in accordance with the departmental protocols. When this set patter becomes interrupted the DR may become flustered or forget to do something.

> *"Whilst observing a DR carrying out a chest X-ray procedure I observed the DR lose their train of thought. This was because the patient has asked the DR a question when they were not expecting it, and the DR had to go outside of their normal patter of speech to answer the question. Then she was unsure about which questions she had asked the patient, and had to go back to the beginning!"*
>
> ***Observation 12/8/08, Area C.***

This may result in the interaction becoming less about the individual patient and more about the examination being carried out. Murphy (2006) agrees with this sentiment, saying that the patient can become depersonalised and objectified. The DR has a dilemma here in that they know they have to follow the regulations and so there are several questions and topics that need to be included in the conversation. The DR does not want to miss anything out, or make an error. However, each patient is different and has different needs. The DR's dilemma is how to carry out the examination so that the patient is valued as an individual whilst at the same time ensuring that they follow the requirements of the protocols and procedures.

Current trends in healthcare are about maximum efficiency and to a DR that is about examining as many patients as possible or in other words input and output. This evidently has an influence on the way in which DRs interact with their patients, as they feel that they need to work as quickly as possible.

DRs do not like to keep patients waiting. A lot of this comes from the NHS Plan (DH, 2000) and the recent emphasis within the NHS on waiting times

and targets to meet for diagnostic tests and the current culture in the NHS about service provision (DH, 2008). DRs appear to be conscious about keeping patients waiting and running on schedule;

> *"I observed the DRs looking at the appointment list and talking about seeing the patients on time. Whenever an examination took longer than its allotted time, the DRs would talk about 'catching up' and the need to process the next patient more quickly in order to 'make up some time'."*
>
> ***Observation 2/10/08, MRI.***

This, however was not unique to MRI or areas in the DID where patients had appointment times. There was also anxiety about patients waiting in the areas of the DID where patients did not have an appointment time. DRs were anxious when there were a lot of patients waiting for X-ray as they did not like to keep them waiting;

> *"The DRs kept coming into the viewing area to look through the request cards and see if they could re-organise the patients so that they could be seen more quickly. Some DRs tried to chivvy their colleagues along and spoke to me about how frustrated they were when the queue of patients waiting became longer and longer and patients had to wait"*
>
> ***Observation 6/10/08, Area C.***

When there were a lot of request cards for patients it was possible to see that the DRs became tense about the situation and they would verbalise their frustration about the volume of work. DRs would often come and sift through the request cards to see what was next and gauge how long a patient might take. When there were less request cards (and therefore less patients waiting) I was able to see the DRs become more relaxed and less stressed about the workload. Theodosius (2008) also talks about the emotional labour and guilt that health care professionals have about keeping patients waiting. As a practitioner I was able to identify with the feeling that the DRs had about keeping patients waiting. During my observations I often wanted to assist them to try to reduce the back log, and it was interesting how quickly I

took on this anxiety and also began to worry about the amount of time that the patients were waiting.

There are two main issues here. Firstly the DRs are concerned directly for the patients, as they do not wish to keep people waiting and they are also concerned about the effect of a long wait on their patient's mood. This links with one of the other themes in this chapter, avoiding confrontation (p128). Secondly, it seems that the DRs are concerned that a long wait in the DID will reflect badly on them. This is probably due to the way in which blame is apportioned in the NHS and that the DRs feel personally responsible for upholding the service in their department. The target focussed nature of the NHS means that departments that provide a service like the DID are being constantly monitored in terms of throughput and waiting times. Barlow (2010) in her guest editorial feels quite strongly about this. She asks;

> "As healthcare professionals, are we being forced to compromise our duty of care and professionalism to meet the demands set by Trust managements as they juggle to meet targets set by the government?" (p4).

She feels that radiographers are being put in a position where they have to increase throughput of patients and that standards may be reduced if there is a queue of patients and DRs may feel under pressure to work more quickly and not produce optimal images.

In view of the recommendations from Lord Darzi's report (DH, 2008) around the quality of the service provided to patients it may be that greater emphasis needs to be placed on putting the patient at the centre and providing a quality service, rather than thinking about numbers and how many patients can be seen in a given timeframe.

5.4. Avoiding confrontation.

From observations made during this study the DRs did not appear to like the confrontation with patients that can result from keeping the patient waiting. DRs stated that they were fed up with apologising to patients about the long wait;

> *"It was a particularly busy day and on several occasions the DRs would come back into the viewing area and comment that yet again they had had to apologise to the patient about the long wait. The DRs commented that they were fed up with doing this as they were all working really hard to clear the number of requests but still patients were having to wait."*
>
> ***Observation 11/11/08, Area B.***

> *"Patients get agitated."*
>
> ***Interview with DR4.***

This was the main topic of conversation whenever the DID was busy and the DRs appeared to be saying that the patients' judgement of a long wait was invalid as they could not possibly understand the system within the DID. DRs were also concerned that the patients became agitated or aggressive as they may be worried;

> *"I do usually try to explain especially if you can pick up that someone's getting agitated and I always apologise when they come in because if you don't they're gonna get aggressive, it's the patient that you're thinking of... they're worried about what the results are gonna be and they've had to sit and wait, and waiting just adds to those worries."*
>
> ***Interview with DR4.***

This particular DR felt the need to explain what was happening to try to reduce the anxiety amongst the patients.

DRs also expressed the fact that patients did complain to them;

> *"we know obviously that we're front line staff you know they're always gonna be moaning at us first you know."*
>
> ***Interview with SenDR2.***

I did observe some difficult and argumentative patients, this was on a day when the DID was particularly busy and there was a long wait;

> *"One particular patient stood in the waiting area and shouted at one of the Imaging Assistants, he demanded to speak to a manager about how long he had been waiting. SenDR7 took the patient into a private area, explained the system to him, and the patient calmed down. The same afternoon one of the DRs also had a patient raise their voice in the X-ray room and this patient said that they would be making a formal complaint about the waiting time, I could see how this could be upsetting for the DRs."*
>
> ***Observation 20/8/08, Area C.***

It was perhaps an anxiety about something like this happening and there being no-one available to deal with it. SenDR7 (a male member of staff) was happy, on this occasion to take the patient to one side, but none of the other staff said that they would feel comfortable doing this. There appeared to be some anxiety about possible confrontation with patients and some reticence to become involved with complaints just in case this might happen.

In their interviews, six of the staff spoke about how they felt about confrontation with patients in relation to keeping them waiting;

> *"I think it's because you're worried that they're gonna start lashing out at you."*
>
> ***Interview with DR1.***

So DR1 is concerned about a possible confrontation with a patient.

> *"We're meeting conflict all the time from patients... we're always going out there saying sorry sorry sorry and you know it's something we have to do."*
>
> ***Interview with SenDR7.***

SenDR7, who is a male member of staff, and was involved in the incident documented above, did not appear to be concerned about the confrontation but more about the fact that he had to continuously apologise to patients. This difference in concern may be a gender issue in that male staff may feel more able to deal with confrontation than female staff. This was certainly the

case when I was observing as the male members of staff would often be called on to deal with confrontational patients.

Stud2 was more concerned about the impact of a complaint that a patient might make about her or about the DID. This may be because she was a student and did not wish to cause any trouble;

"If people are kept waiting then they complain, complaints aren't good."
Interview with Stud2.

SupDR1 felt that the DR should try to prevent the patient from becoming anxious or cross whilst they were in the DID. As a superintendent DR she may have been concerned for her staff and for the reputation of the DID.

"You don't want to make a patient anxious and cross."
Interview with SupDR1.

The manager had the opinion that the DR would;

"...take the line of least resistance."
Interview with Manager.

in order to avoid confrontation. It suited the manager to see the DRs in this way. This is an interesting point which needs further discussion. Is it possible that DRs are aiming to avoid confrontation by taking the line of least resistance, or is it that the DRs feel that they are unable to deal with confrontation due to a lack of training in managing difficult situations? From this study it seems that the avoidance of confrontation is more to do with a dislike of anything that disturbs the status quo. The DRs would rather reduce the chances of confrontation and so they have a tendency to comply and not challenge. It may also be due to the fact that any confrontation with patients makes them feel upset and so they try to avoid it.

It can be seen from the statements made by DRs in their interviews that they do become emotionally involved with patients in regard to keeping them waiting and dealing with their responses to the waiting time. DRs use words or expressions such as; being 'fed up', agitated, aggressive, worried, upsetting, anxious, cross; all of which are emotional responses.

The concept of emotional intelligence may contribute to these responses. Goleman (1998) summarises emotional intelligence as:

1. Self-awareness — the ability to read one's emotions and recognize their impact while using gut feelings to guide decisions.
2. Self-management — involves controlling one's emotions and impulses and adapting to changing circumstances.
3. Social awareness — the ability to sense, understand, and react to others' emotions while comprehending social networks.
4. Relationship management — the ability to inspire, influence, and develop others while managing conflict.

These qualities can be seen to be useful for a DR in their practice, and from the results of this study it can be seen that some DRs may be lacking in emotional intelligence and find it difficult to manage their emotions when dealing with patients. The context and the pressure that they are under at the time may also have an influence on the DRs' response to confrontation.

It is interesting to see that DRs are concerned about complaints, and perceive complaints not to be good. Once again this probably stems from the current climate in the NHS about the quality of service delivery (DH, 2008), and also

how the issue of blame is dealt with in the organisation. The theme of blame culture is discussed later on in the thesis in section 7.1 (p174).

5.5. Categorising patients.

DRs make judgements about their patients. They tend to talk about patients who are deserving of health care and those who are not. Patients considered to be 'undeserving' were broadly those who had contributed to their own health care issues. For example, due to alcohol;

> *"I observed two DRs talking about a patient who had been referred for an X-ray but was behaving badly and had been involved in a fight. He had been drinking heavily and he was quite rude to the DRs. The DRs commented that he didn't deserve to be looked after."*
>
> ***Observation 14/8/08, A&E,***

in relation to drugs overdose;

> *"A Radiologist came into the staff room to speak to the CT DRs about a patient in resus who had taken an overdose and stabbed himself, he needed a CT abdominal scan urgently. Once she had left the room the DRs discussed this patient and many derogatory and sarcastic joking comments were made."*
>
> ***Observation 6/11/08, Staff room,***

from stabbing themselves;

> *"the DRs discuss patients from last week, which was busy and talk about the patient who had stabbed himself. The general opinion was that he did not deserve all of the fuss that was made of him as the injury was self-inflicted."*
>
> ***Observation 11/11/08, CT,***

and due to obesity;

> *"DRs talk about X-raying obese patients and how difficult it can be. DR5 had had a difficult patient this afternoon to X-ray, he was overweight and she found it a challenge. The DRs commented that obese patients need to lose weight so that they have less chance of having health problems."*
>
> ***Observation 17/11/08, Staff room.***

The DRs were making judgements based on the patient's circumstances.

These judgements were verbalised between the DRs and some agreement was reached about how the DRs felt about these patients.

In contrast to this, when DRs saw that a patient was in their opinion 'deserving' then they genuinely cared for them. I observed a DR caring for a distressed patient;

> *"one of the patients was very distressed and upset, the DR spent time with her, listening to the patient's problems and reassuring her."*
> ***Observation 11/8/08, Area C.***

This particular DR took quite a lot of time to sit with the patient, despite the DID being busy, which seems to contradict the notion that DRs do not have time to spend with their patients.

I observed DRs reassuring a nervous patient in CT;

> *"there was a nervous patient who needed reassurance from the staff and some gentle persuasion to go through with the scan. The DRs demonstrated empathy, good patient care and communication skills."*
> ***Observation 11/11/08, CT.***

In this situation it was apparent that the DRs felt it to be worthwhile to spend some time reassuring this patient, so that they were able to go through with the investigation. They obviously felt that this patient was deserving of their time.

DRs also spoke to me in their interviews about the need to reassure patients;

> *"you try your best with them and you try and get them in and reassure them and talk to them, explain what you're doing."*
> ***Interview with SenDR12.***

> *"you've got to try and sympathise with them and try and reassure them. As long as you explain to them what you're going to do then they're usually fine."*
> ***Interview with Stud2.***

and being caring to those who are unwell;

> *"if they're really ill I change my tone of voice, I change the words that I use, I'm quieter."*
>
> ***Interview with SenDR2.***

This is not unique to DRs, many studies in health care talk about the notion of deserving versus undeserving patients; in a hospital emergency department (Dodier and Camus, 1998), in medicine (Becker et al., 1961), and in nursing (Cudmore and Sondermeyer, 2007). Other studies also talk about how health care professionals make judgements about patients and categorise them in order to decide how best to treat them; in radiotherapy where radiographers were seen to 'typify' their patients (Brooks, 1989), in an emergency department (Dodier and Camus, 1998; May-Chahal et al., 2004), and in health and social care in general (Taylor and White, 2000).

It was evident from this study that the DRs typify their patients and make judgements about them based on their initial impressions and previous experiences (Benner, 2001). It is generally part of any culture to have 'types' of people and to be able to categorise people (Agar, 1980; Atkinson and Housley, 2003). Once we have categorised someone then we find it easier to predict and understand their behaviour. Madison (2005) says that we use our expectations, images, and impressions of people to stereotype them. Davis (1959) in his paper entitled 'the cabdriver and his fare' says that cab drivers develop their own typology of cab users based on their appearance, demeanour and conversation, Murphy (2009) says that this very similar to the way in which DRs categorise their patients.

So the typifying of patients can often affect practice and the way in which patients are treated. It appeared that patients who are seen to be more deserving appear to be treated in a more caring way by DRs, and those interviewed felt that it was important to reassure and care for these patients. However, if a patient was seen to be less deserving then this aspect of care did not appear to be part of the interaction. DRs found it hard to show empathy to such patients.

When speaking to DRs during the study I asked them why they think that they make judgements about patients and typify them.

> *"Discussion about why we make judgements about people. It was felt that everyone does this but in health care the DRs felt that some people deserved their care and attention, particularly if there problem was not their fault, but if an injury was considered to be 'self inflicted' then the DRs felt that this person was less deserving of their time."*
>
> ***Observation 17/11/08, Staff Room***

This is obviously a very subjective way of making a decision, for example how do you define a self-inflicted injury? Is a road traffic crash self inflicted? This is a grey area, and yet the DRs appeared to agree on which patients were considered to be deserving based on their judgement of the patient's circumstances and the information that they had been given.

The DRs also felt that typifying patients helped them to decide how the examination would go, how to address the patient and also more crucially it gave them some idea of how long the examination might take so that they could plan. In categorising the patient, based on previous experiences they were able to make judgements about what to expect.

> *"DRs also talked about how they categorise people in order to know how long something will take, they tend to build up a picture in their minds of the patient once they have looked at the request card, they*

look at the name, date of birth and the reason they are there, and then they can decide what the examination will be like."

Observation 17/11/08, Staff Room

Categorising the patient in this way then appears to assist the DR in their decision-making processes about the examination to be carried out and about the patient that they are about to deal with. The DRs use the information that they have from the request card to typify their patient. However, an error in judgement could lead to poor communication, something which a DR may experience if they make an incorrect judgment.

5.6. Summary.

In summary the relationship between the DR and the patient is a complex one. The DR is focused on the task that needs to be completed and is constantly weighing up the care and time needed by the patient and the time pressures that they have to complete all of the work required. Generally DRs make a rapid assessment of their patient and categorise them into a particular patient type which allows the DR to make judgements about the patient. DRs do not appear to enjoy confrontation with patients or show their emotions in front of their patients. This appears to be learnt behaviour and the way in which DRs choose to take control of their own emotions when faced with distressing situations. There is an element of impression management where DRs have a public professional face with their patients and a less professional face with their colleagues (Goffman, 1959).

These findings fit with all of the study objectives. Some current issues have been uncovered, learnt behaviour has been identified and some of the communication and interaction methods with patients have been explored.

6. Relationships with colleagues.

There were six themes which related to relationships between staff, so I have called these relationships with colleagues. Five smaller themes and one key theme are discussed in this chapter. The key theme is 'use of dark humour', and the data associated with this key theme can be found in Appendix 7.

Within a District General Hospital like Anytown Hospital NHS Trust the DRs spend the majority of their time working with other DRs in the DID. DRs also work with other health care professionals both within the DID and in other areas of the hospital such as A&E, operating theatres and on the wards.

6.1. Use of dark humour (key theme).

This was considered to be a key theme from the data and links with the key theme from the previous chapter which was the DRs' involvement with patients (p107). Alongside this involvement is the way in which DRs deal with the situations they come across and how this is communicated to their colleagues. During my observations and interviews I was aware that like many other professions working in public services, DRs use dark humour as part of their conversations about service users. All of the data associated with this theme can be found in Appendix 8.

The first example that I observed was a particularly stressful situation which occurred whilst I was observing and the DRs were 'letting off steam' after the event.

> *"The DRs joke about a patient having a cardiac arrest in the DID. The DRs laugh about what the patient looked like, what colour his face was and also how stressed everyone was."*
>
> ***Observation 11/8/08, Area C.***

This incident was challenging for all of those involved and the patient died.

There was another occasion in CT that I observed.

> *"The staff make derogatory comments and joke about the size of an obese patient who was so large that he only just fit through the CT scanner."*
>
> ***Observation 29/8/08, CT.***

This occurred when the DRs had been having some trouble with the patient, and in order to let out their frustration the DRs had a joke about it all, at the expense of the patient.

I also encountered dark humour in the staff room;

> *"Comments were made about an overweight patient who had attended the department that morning. There was also a conversation about vomit and barium studies going wrong."*
>
> ***Observation 13/8/08, Staff room.***

And in the viewing area;

> *"Discussion in the viewing area about a few patients with unusual conditions who had visited the department over the past week. The DRs joked about these patients and jokes were made about them regarding what they looked like, how they behaved and also about their images."*
>
> ***Observation 9/9/08, Area B.***

Sometimes the comments turned from humour to being derogatory comments;

> *"Derogatory comments made about a patient from yesterday."*
>
> ***Observation 2/10/08, MRI.***

> *"DRs comment on what a patient is wearing and laugh about it."*
>
> ***Observation 17/11/08, Area C.***

So, where should the line be drawn and is this acceptable behaviour? I was keen to explore why the DRs thought that dark humour and joking about patients was an acceptable part of their culture.

DR1 expressed why she thought that dark humour was used in her interview.

> *"It's never nice to see patients in pain and I think to an extent we laugh about it to keep it light."*
>
> ***Interview with DR1.***

It seems here that DR1 is trying to justify laughing about patients, implying that it is okay to do this in order to lighten the atmosphere and make it less serious.

Other DRs saw the use of dark humour as a coping strategy, and a way of dealing with the difficult situations a DR has to face.

> *"I think it's a coping strategy you know ... I guess you turn it into humour to keep you going, it's just a coping mechanism... well you can't cry, you can't well you can't show any emotion so the only way you can show it is by joking about it and turning it into something light hearted."*
>
> ***Interview with DR4.***

Saying that the use of dark humour is a coping strategy is a fairly standard explanation and one that I expected to hear. However, there is more to this than just providing en explanation for the behaviour. In saying this DR4 is reflecting on her own use of dark humour and taking up a position to justify her actions. She is taking up a subject position which says 'I am not a bad person' and I can justify my behaviour.

It also seems that DR4 feels that she is not able to cry or to show any emotion at work even if the incident upsets her. So for her the next best thing is to show some emotion through humour and laughter to relieve the tension. This sentiment was shared by IA4 in her interview. Although she is not a DR, she appears to be socialised into the culture of the DID, and thinks in a similar way.

"I think it helps you to cope, to make a joke, otherwise you can get quite depressed I suppose. Oh yes, definitely, it is about how we cope. It is you know how you get through it and otherwise you know you'd just get so depressed and so stressed you well you wouldn't cope. You have to not take it into heart too much ... but it's good that you can you know well even if something starts off as a joke it brings it to the fore and you can you can then discuss it you know ... there's no point in trying to hide things up and pretend it didn't happen. If you take it on board it's not healthy no no."

Interview with IA4.

IA4 also feels that the use of humour gives the staff members a way of discussing something that has happened and bringing it out in the open in a non-threatening and less serious way. She feels that taking on the burden of what is seen in the DID is not healthy for staff members either.

The manager has a slightly different take on this and talks about how uncomfortable he feels, and therefore he thinks other DRs feel about discussing life and death matters.

"You're actually dealing with things that are well if they happen to you would be the stuff of your worst nightmares but because you're in a front line hospital, you've got people coming well if you've just had a severe road traffic accident or have got the worst forms of cancer, the things that you absolutely dread and it's not actually you know even as I'm sitting here talking to you about it on that level well it almost feels uncomfortable but you'd normally cope with it by saying or by treating it a little bit more lightly."

Interview with Manager.

And so, he concludes that DRs will like to treat things a little more lightly, using humour, in order to cope with what they might have just dealt with.

"It's almost like you've got to laugh or you'll cry kind of reaction."

Interview with Manager.

SenDR2 sees this as a coping mechanism too.

"Joking about patients and their misfortunes is a coping mechanism um it's a way of coping, trying to cope with what they've seen and what they've had to do."

Interview with SenDR2.

SenDR7 also thinks that it is not good for the DR to take things to heart.

"I think it's the way that that we deal with it because I think if we took everything to heart I think that seriousness um we would never cope... We do see some very horrible, pretty horrendous things and you know then you can see some of the radiographers are shaken up over it and the only way to probably deal with it is make a joke about something you know and they've sort of used it to see the smile come back."

Interview with SenDR7.

She obviously feels that it is important to keep going and to keep smiling, which raises the issue of emotional involvement once more. It appears from these comments that in order to keep working in the face of challenging situations the DR will distance themselves from the patient and their circumstances and they use humour to achieve this.

Why is it that DRs do not feel that they should become upset with their patients? Where do they learn that they need to maintain a professional demeanour and not become upset when with the patient? It appears that this is learnt behaviour which Goleman (2004) calls 'display rules'. This concept was discussed earlier on in section 5.1 (p112) when DRs' involvement with patients was discussed. So from experience and by observing others Goleman says that how we show our emotions and to what extent is governed by the social situation in which we find ourselves, and this is learnt very early on in a new situation. So DRs perceive it to be unacceptable for a DR to cry with a patient who is upset because they have learnt that this is not appropriate from others. This is an example of learnt behaviour. The DRs feel that they should be there to provide a service for the patient and that the crying should come afterwards, away from the patient. To some extent this learnt behaviour comes from role modelling the behaviour of others in the culture, and so such behaviour continues without question. Goffman (1959) also talks about behaviour in different situations and how we present

ourselves to other people. He talks about 'playing a part' and that we have different roles or parts that we play in front of different people. This is discussed further in the section entitled 'behaviour in different areas' 7.4 (p193).

The manager also felt that dark humour and joking about a situation could be used to gauge if a colleague was okay and that they weren't too upset after dealing with a traumatic situation.

> *"there was a patient who was very ill and had a brain tumour, I can't really remember any of the sort of light hearted remarks that were made ...but it was just a way of dealing with it and almost well these sort of things happen or something like that. I can't remember exactly the throw away line that she used to say, yeah I'm okay about it. I mean what you're actually communicating is ... I know that it was horrible and I've been through it and I'm actually okay and don't worry too much. You're actually giving that kind of message to somebody yep that I've coped with it and you can unload. An awful lot of that kind of emotional stress that people experience is dealt with in that almost subliminal sort of humorous way ... that was horrible you know and are you okay? I heard you had a really really difficult experience, it's oh I'm sorry to hear that happened or something like that. And they will come back with a flippant remark which is actually saying I'm okay you know and I've dealt with it and if they promote the conversation then you know they want to talk about it. Then you are banging around for a few minutes and then you're gonna throw off a couple of jokes and that's the end of it so it's a coping strategy that often I think is actually a very effective one."*
>
> ***Interview with Manager.***

Goleman (2004) says that "being able to pick up on emotional clues is particularly important in situations where people have reason to conceal their true feelings" (p135), so in behaving as the manager describes we are giving our colleague a way of talking about what they have been through without engaging our emotions and speaking to them on the level that they have chosen to use, which is often humour. This can be a useful strategy in an emotional situation and can be used to support a colleague in a non-threatening way. It could be seen as peer support in trying to assist a

colleague to deal with something difficult. Dean and Major (2008) agree with this assertion and say that dark humour serves to relieve tension. They discuss the use of dark humour between staff on ITU and how it is used to support peers and relieve the tension created by life and death situations. Dean and Gregory (2005) also found that humour was used to relieve tension within a palliative care setting. Higher stress levels amongst staff elicited greater use of humour.

Two of the participants talked about detachment and its link with the use of dark humour.

> *"Joking about patients and their misfortunes which is a coping mechanism um it's a way of coping trying to cope with what what they've seen and what they've had to do. I think it's like a detachment you know it's a way of coping with what we've just seen what we've just done."*
>
> ***Interview with SenDR12.***

> *"I think the only reason that we can so easily joke about it is that we're detached from that person we don't know that person."*
>
> ***Interview with Stud2.***

Some staff also felt that it was human nature for people to joke about their customers and this was not unique to a healthcare environment. They expressed this idea in their interviews.

> *"I just think when groups of people get together that's the way conversations tend to go."*
>
> ***Interview with SuptDR4.***

DR1 felt that joking about service users was common to every job when you deal with the public.

> *"I think the thing is though that I think you do that in every job, every job I've ever had we've always had a joke about the people or the customers it just seems like it's human nature make a joke of it."*
>
> ***Interview with DR1.***

From my observations it appeared that the DRs used humour in difficult or uncomfortable situations. They appeared to use humour as a way of talking about these situations and to bring things out in the open. SenDR12 confirms this in her interview;

> *"yes we joke and then funny things that happen it makes people laugh at um and sometimes it's a bit it's intense isn't it in a meeting or somewhere or you X-ray somebody who's got a great big tumour or something and I think it's a way of relieving I don't know stress I suppose and sharing things with people and sometimes although you make fun of something to cope."*
>
> ***Interview with SenDR12.***

Other authors speak about the use of humour in practice. Griffiths (1998) says that humour can be used to challenge other staff during difficult situations. He also says that humour can become a group norm and accepted group behaviour in certain circumstances. Decker and Iphofen (2005) in their paper about the use of oral history in radiography observe that radiographers use humour in the workplace as a coping mechanism. Wolf (1988) observed nurses using humour in their interpersonal interactions to deal with difficult situations. Becker et al. (1961) also remark on the use of dark humour between medical students when joking about patients and their misfortunes.

We do, however need to explore the ethics of joking about patients' misfortunes. It appears to be human nature in any job when dealing with members of the public to joke about the customers. However, is it ethical to joke about a patient behind their back, and to laugh about a patient's situation as long as they don't find out that we are doing it? As a so called 'caring' professional is this acceptable? Dharamsi et al. (2010) consider the use of derogatory and cynical humour directed towards patients to be

unprofessional, disrespectful and dehumanising. However, they acknowledge that this behaviour stems from the culture in which the professionals work. The evidence from this study seems to support the idea that joking about patients and their misfortunes was part of the culture and acceptable behaviour within the DID.

It is important to be aware of the context in which this dark humour is used. The majority of the time in this study the DRs used humour as a coping strategy, and this was not in front of the patient. If it were to be expressed in the presence of a patient this would not be acceptable and would be poor professional judgement. This behaviour, however was confined to the staff only parts of the DID. This fits with Goffman (1959) and his idea of front and back stage. Dharamsi et al. (2010) also suggest that physical or social distance somehow makes it more acceptable to joke about patients. However, they still assert that medical professionals need to be equipped with integrity, respect and compassion along with reflective skills to examine their own behaviour and prevent inappropriate responses.

Dean and Gregory (2005) see this use of humour outside of patient areas in a slightly different light. In their study within a palliative care ward they observed dark humour in staff meetings and say that although staff used dark humour extensively amongst themselves, they instinctively recognised the need for sensitivity amongst patients and relatives. They felt that staff were able to make the distinction between appropriate and in appropriate use of humour. Dean and Gregory (2005) agree that humour is shaped by cultural code and what is deemed to be acceptable behaviour.

The use of humour is clearly linked to DRs' involvement with patients and how they deal with this. This could also be linked to their emotional intelligence. The DRs choose not to become involved with patients and use humour to deal with difficult situations in order to protect themselves. Cherniss (2000) says that the ability to manage feelings and handle stress is an important aspect of emotional intelligence. It seems that humour is the way that DRs have learnt to do this, and all of the DRs interviewed acknowledged that this was true for their department.

Goleman (2004) talks about empathy distress; where one person catches another's distress and joins them in it, and the person who catches the distress does not have the self-regulation skills to deal with it. He goes on to say that "Medical residents 'toughen themselves' to handle empathy distress; their joking about patients near death... is part of this emotional shell, a way to deal with their own sensitivities." (p144). So it seems that DRs guard themselves against empathy distress by developing an emotional shell. They use humour to deal with this emotion and harden themselves against involvement with their patients in order to protect themselves emotionally.

6.2. Team working and communication between DRs.

The DRs saw team working to be an important part of their work. In their interviews the DRs talked about this team working. Their comments can be grouped into two distinct areas of teamwork; the friendly atmosphere between colleagues, and the ways in which they work together. These comments

relate to the friendly atmosphere. DR1 talks about the communication within the team;

> *"Everyone seems to work together really really well. I think everyone communicates really well here, there's lots of respect between the radiographers."*
>
> ***Interview with DR1.***

She feels that good communication shows respect between the team members. DR4 says;

> *"I think we've a good comradeship and teamwork going."*
>
> ***Interview with DR4.***

She is concentrating more on the teamwork aspect of the department and how people work together. This feeling was shared by IA4;

> *"They (the DRs) always seem to look after and look out for each other."*
>
> ***Interview with IA4.***

IA4, an imaging assistant felt that the DRs work together well and she thought that they were a good team. SenDR7 felt that the team was a key part of the smooth running of the department and stated that;

> *"Team work's important."*
>
> ***Interview with SenDR7.***

Stud2, who was a third year student at the time of the research, stated that;

> *"Everyone seems happy and willing to work together as a team and everyone knows what we're here to do."*
>
> ***Interview with Stud2.***

This is her observation of the DID. She obviously feels that this is something to remark about and she also talks about the purpose of the work that the DRs are doing together.

Whilst I was observing I noticed this teamwork, and the way in which the DRs worked together. This was not a particularly busy day, there were no real time pressures and the DRs worked well together to get the job done.

"The DRs are working well together; they are helping by processing images for one another. There is friendly team work and evident camaraderie."

Observation 11/8/08, Area C.

"The DRs are helping one another with processing images and working together as a team."

Observation 20/8/08, Area B.

There appeared to be a really friendly atmosphere amongst the staff and they worked well together to complete the tasks in hand. During the observations I was able to see this team work in action in the day to day working of the DID.

The second area of team work was the way in which the DRs worked together. The DRs would take on different roles within the team in order that the examination would run smoothly. First of all I observed this within the small team in CT;

"There is a small team of DRs in CT and they all play their part. DRs take it in turn to do the scans, one DR prepares the patient and the other prepares the equipment. If the patient needs a canulla inserted then the DRs work together to do this."

Observation 13/8/08, CT.

It seemed that the DRs had developed their own system of working so that everyone was involved and everyone had a part to play. They appeared to take it in turns, and everyone knew whose turn it was next and what needed to be done. This was also evident in Area C where the DRs were often working in a small team when imaging in-patients, particularly if the patient had mobility issues;

"When dealing with in-patients the DRs work together. The DRs help one another to sit patients up, position the image receptor and the X-ray tube."

Observation 29/8/08, Area C.

When working together the DRs are able to adapt to the situation, taking on different roles, for example one DR will deal with the patient whilst the other

deals with the equipment, or one DR explains the procedure whilst the other sorts out the image receptor. The DRs were able to adapt to different roles within the team depending on who they were working with. It appeared that the team working was almost choreographed, and each DR played a different part, working with each other and the whole team so that the examination went smoothly. This was particularly evident in Room three (the fluoroscopy room) and CT where staff members tended to work with one another all of the time and were therefore used to working together and could read one another's body language. The DRs communicated well, often using non-verbal communication. I observed this in several areas within the DID;

> *"DRs communicate with one another across the patient, this is often done via non-verbal communication, using facial expressions. Each DR tends to take a different role in the procedure, for example one DR sorts out the patient and another sorts out the X-ray tube."*
>
> ***Observation 14/8/08, A&E.***

Because the members of the team know what is going on, they are able to communicate with one another about what is happening and how things are going. I saw this happen during a fluoroscopy list in Room three.

> *"Staff members observe one another and the patient to work out how the examination is going and what is going to happen next. A lot of the shared language is unspoken, non-verbal communication; facial expressions and body language. The use of language is different with patients and colleagues."*
>
> ***Observation 3/9/08, Room 3.***

Another example of non-verbal communication between staff occurred when a patient did not smell particularly nice;

> *"Facial expressions are used to communicate. A patient with an unpleasant odour was in the room and the DR communicated this to her colleagues without speaking."*
>
> ***Observation 23/10/08, A&E.***

In her interview DR4 said that when you've been working with people for a long time you often do not need to use words to communicate, as your colleague is able to know what is going on.

> *"I think that because we've worked together for such a long time you don't need to use verbals because you know what's going on from the look and the body language and you know. I mean if you've got something that you're not quite sure of or that's raising concern you've only gotta look at each other sometimes (laughs) and it gives it away."*
> ***Interview with DR4.***

This shared communication between professionals is also a finding of other studies. Annandale et al. (1999) in their study of emergency health care talk about how the nurses work as a team and assist one another. Wolf (1988) and Street (1992) in their ethnographic studies of nursing practice talk about how nurses communicate with one another and ask for advice. Wolf (1988) talks about shared language and symbols used by the staff in their conversations and she also observed that staff members would know if a colleague had an emergency situation to deal with by the way in which they asked for help. This comes from working with the same people for a period of time, and understanding when someone needs help by the tone of their voice or from the words that are used. Professionals appear to learn these skills through their training and from experience.

Within the DID DRs may use technical language in front of a patient so that they can communicate with one another without the patient understanding what is being said. For example, the DRs could discuss how they were going to position a patient between themselves, obtain agreement and then ask the patient to move where they want them using language that the patient would understand. Shared language and symbolism used in the DID is often technical language, or abbreviations which may not be understood by non-

DRs. I saw this in MRI and CT, particularly from the control room to the imaging room, through the glass window.

> *"Body language and non verbal communication used to communicate between DRs."*
>
> ***Observation, 23/10/08 MRI.***

> *"Lots of non verbal communication between staff to signal how things are going and what needs to be done."*
>
> ***Observation, 24/11/08 CT.***

The manager expresses this in his interview too.

> *"Radiographers, I mean clearly any professional group can develop its own modes of communication and successfully do non verbals. A lot of it is using acronyms and terms that perhaps other people from outside the profession may not necessarily understand."*
>
> ***Interview with Manager.***

The DRs in this study evidently felt a real team support network within the DID. Makanjee et al. (2006) in their study of DRs in South Africa which looked at organisational support, found that DRs stayed working where they were because of the peer support they received and the people that they worked with. Peer support is a common theme in such studies and DRs at Anytown Hospital NHS Trust talked about peer support and being able to share problems, supporting one another in practice. This concept is called a professional network, referred to by Southon (2006) or a community of practice (Lave and Wenger, 1991). This peer support was evident in the observations but it wasn't really used to its full potential for CPD or for professional development.

There was a close bond between many of the staff members and several or them were friends outside of work and socialised together. However, this could create problems on occasions where social interactions became more

important than the task at hand, and when these friendships were a barrier to working with others.

6.3. Interprofessional relationships.

It seems that the DRs work together well as a team, but this can serve to make the DID a closed community where outsiders and visitors find it hard to enter. DR4 expressed this in her interview;

> *"I think sometimes it can be quite intimidating to come into a group of radiographers but when you do have to work so closely together you do start to shut other people out and particularly for doctors that are coming in ... junior doctors that come round with a form and are there thinking oh my goodness am I gonna be able to get this X-ray, they appear at the entrance to the viewing area and they look like they don't wanna be here don't they? Radiographers will just let them stand there, so it can be quite intimidating."*
>
> ***Interview with DR4.***

Wolf (1988) found something similar in her ethnography of a ward. She found that the nurses on the ward behave as if it is their team against the rest of the hospital. They supported their own colleagues and behaved like a closed community. A workplace or culture can behave in a very exclusive manner and this helps to define it as a cultural group. Members of a group can exclude others through their behaviour, through the use of language and by exhibiting shared beliefs and values. It appears that this DID was no exception and that the DRs were quite happy being part of their own culture. So much so that anyone from outside that culture could be made to feel that they were an outsider and not welcome within the culture. This was especially true for non-DRs. This behaviour can make interprofessional working and relationships difficult.

DRs work alongside and liaise with many different professionals within the hospital. During the time of the observation I witnessed several examples of interprofessional communication within the DID. For example with nursing staff from the ward;

> *"When in-patients come down to the DID, DRs co-operate with the escort nurses. DRs are often on the telephone liaising with ward staff about imaging requests or speaking to referring clinicians."*
>
> ***Observation 11/8/08, Area C.***

This was also happening in the A&E X-ray room with A&E staff;

> *"Communication between DR and referrer in A&E to clarify the reasons for an imaging request."*
>
> ***Observation 14/8/08, A&E.***

And with referring clinicians;

> *"A Doctor comes to speak to a DR about an X-ray request."*
>
> ***Observation 29/8/08, Area C.***

During my study there were a number of occasions both during the interviews and observations where the DRs talked about lack of understanding between professional groups. The DRs spoke about misunderstanding and how professionals do not always understand one another's roles and jobs.

> *"The DRs discuss how some surgeons do not seem to understand the role of the DR in the operating theatre and have unrealistic expectations."*
>
> ***Observation 11/8/08, Area C.***

This was discussed on several occasions and misunderstandings within the operating theatre appeared to be a common occurrence.

> *"DRs talk about an orthopaedic surgeon who misunderstood the role of the DR."*
>
> ***Observation 12/8/08, Area C.***

The DRs were very quick to blame other professionals for the lack of understanding of their role. It was only SenDR16 who acknowledged that DRs are to blame too.

"SenDR16 talked to me about how communication is important in understanding how other professionals work. She believed that we (DRs) are to blame in some situations when others do not understand us."

Observation 14/8/08, A&E.

DR1 explains that she does not always know what other people do either.

"You do get the occasional doctor or nurse that can be quite rude because I think they're ignorant about what we do but you know then they could say the same about me because I've not got a clue about what they do either!"

Interview with DR1.

DRs visit other parts of the hospital, outside of the DID. The issue of interprofessional teamwork, particularly in areas outside of the DID was discussed. This is where the DR is outside of their comfort zone, outside of the DID, and they are often the only DR in a team within someone else's department.

"The DRs talk about their role in theatre and how DRs interact with other staff and work with them."

Observation 11/11/08, Staff room.

It appeared that the DRs were not so comfortable when working outside the DID, and they became quite defensive when criticised under these circumstances.

"We used to be very isolated and not mix with A&E very much but now we are more in close proximity and mix with A&E staff more which has improved relations I think."

Interview with SenDR2.

At Anytown there was no X-ray room within the A&E department until recently and patients used to come round to the main DID from A&E. However, now there is an X-ray room in A&E, and as a result the DRs have more opportunity to be integrated into the A&E team, and speak to the staff in A&E. SenDR2 felt that this had increased communication and allowed for staff to better understand one another's roles.

Other researchers talk about interprofessional collaboration. Allen (2004a) in her summary of nursing ethnographies says that language and jargon can be used to create a barrier between professional groups. Becker et al. (1961) in their study of medical students talk about professionals vying for power and describe the hierarchy of the hospital. Some writers take this further, citing professional identity and a protection of their role as reasons for poor interprofessional relationships. Wolf (1988) found that the nurses were critical of other professionals, "the nurses thought they knew certain areas better than doctors and other hospital personnel" (p254). Mork et al. (2008) in their ethnography of a health centre say that some health care professionals may find it difficult to see the perspective of others, "for some individuals it is impossible to let go of their identity" (p17). White and McKay (2004) when discussing specialist DRs talk about resistance to change and the need to protect ones own practice domain.

It seems, from this study that DRs are not particularly good at interacting with or understanding the roles of other professionals. However, they still appear to criticise these other professionals when they don't understand the role of the DR. It seems that in taking on the culture the DR learns that their profession is the 'in group' and others are the 'out group'. As a DR working in the DID during the day it is possible to only interact with patients, relatives and other DRs and not to come into contact with any other professionals. As a result it is relatively easy for a DR to work in isolation or just to interact with other DRs and not have to acknowledge the bigger picture, the hospital or the service as a whole. However, the DID is an important part of most patient pathways, and can cause delays for patients, therefore it is important for the

DR to see how their actions can have an effect on the patient and the other professionals caring for that patient.

This lack of engagement in interprofessional working has implications for practice, particularly with the recent emphasis on waiting times and targets. DRs need to be aware of where their service fits into the patient pathway and what impact their actions can have on the Trust as a whole, particularly at Anytown, where the Trust is working towards Foundation Trust status. The Darzi report (DH, 2008) positively encourages interprofessional working and improving partnerships between professionals. He says that we should put patients first in everything that we do; "we put the needs of patients and communities before organisational boundaries" (p70), and this means improving interprofessional working.

It appears from this study that DRs find interprofessional working a challenge, and that the culture in the DID makes it a 'closed community'. This may be due to the nature of the job, in that the patients come to the department to be imaged and so most of the DRs stay within the comfort of their own department. However, DRs need to do something to improve this. The 'closed community' is a result of the workplace culture within the DID. The DRs have developed a way of viewing the world (Crotty, 2005), and this may differ from the viewpoint of other professionals. Ogbonna and Harris (2002) say that the beliefs and values within a culture shape that way in which people respond to their environment. Using these ideas about culture can provide an explanation for the different ways in which professionals within a hospital

behave and therefore differ in their interpretation of events. This can lead to misunderstandings and often a breakdown in communication.

DRs need to become part of the interprofessional team and engage with service provision and improvement on a hospital-wide scale. This could improve their relationship with other professional groups and increase awareness of one another's roles.

6.4. DR to Radiologist relationships.

Professional groups can dominate others. They can put up barriers to protect their own areas of expertise in order to secure their professional status. When looking at the literature the historic relationship between DRs and radiologists is evident. Lewis et al. (2008) in their research about the ethical commitment of Australian DRs talk about the history of sub-ordination and the medical dominance of the radiologist. Henwood (1996) when writing about quality in the DID says that there is a dichotomy for DRs between being a professional but not being responsible, due to the presence of the radiologist. Barley (1986) in a paper about how technology influences the organisational structure of the DID says that radiologists are dominating and that there is a hierarchy of authority. However, this situation has been changing in recent years due to advanced practice and DRs taking on extended roles. Murphy (2006) points out that radiologist domination is changing now that technology is advancing. Yielder (2006) agrees, saying that the division of labour between DRs and radiologists is changing. Hafslund et al. (2008) asserts that "radiographers are taking on greater responsibilities and today perform work that only a few years ago was exclusively the radiologist's" (p1). Price

(2008a) in the 'Scope of Practice' talks about the role of the radiologist in supporting DR role development and how some radiologists are not supportive, holding on to certain areas of work and resisting change. Some of these issues were evident in this study. There appeared to be reluctance from the radiologists to relinquish some roles.

> *"In CT the radiologists decide on the scan protocol for all patients. The duty radiologist has to check and okay any in-patient scan requests and has to check the images before the patient leaves the department, this appears to be a little paternalistic."*
>
> ***Observation 13/8/08, CT.***

In other hospitals these roles have been largely taken over by DRs, and so it was evident that the radiologists here had a keen interest in CT and wished to keep a tight rein on this area of practice. There was also evidence of paternalism and a reliance on the radiologist to make decisions in other areas of the DID. Whilst I was observing I saw DRs consult with radiologists.

> *"One of the DRs went to check with the radiologist as she was unsure about some information on the request card."*
>
> ***Observation 11/8/08, Area C.***

> *"One of the DRs discussed the patient's previous images with the radiologist."*
>
> ***Observation 23/9/08, Area C.***

It was apparent on these occasions that the DRs were reluctant to make decisions without consulting with the radiologist. It was interesting to see this, as on other occasions, other DRs were quite happy to make similar decisions.

I had an interesting discussion with SenDR4 and SenDR2 about extended roles in radiography and about where the boundary was.

> *"SenDR4 and SenDR2 discussed the extended role of the DR and the radiologist's role. There appears to be a 'ceiling' or 'boundary' to what is allowed to be done by DRs in this DID. Radiologists hold on to certain things."*
>
> ***Observation 23/9/08, Area C.***

This feeling about a 'ceiling' was also shared by SenDR12 in her interview.

> *"Our radiologists are a bit reluctant to relinquish some things, some things have come about because it's easier for them you know it's not because of the role extension and that, so it's what suits and there's a tension between the radiologists and the radiographer extending their role and that's different in different hospitals."*
>
> ***Interview with SenDR12.***

This could be a problem at Anytown as the boundary between the radiologists' and the DRs' roles was not clear. In areas where the radiologists had a keen interest such as CT, there was little scope for the DRs to extend their role, for example none of the DRs reported on CT images, something which is being done in other DIDs. However, in fluoroscopy there were four advanced practice Senior DRs who carried out all of the fluoroscopy procedures and reported on their images. It appeared that none of the radiologists were particularly interested in this area of practice and therefore the DRs had more opportunities in fluoroscopy. In order for DRs to take on advanced practice roles, radiologists need to provide opportunities and support for training.

Despite this reluctance, in some situations, teamwork between the DR and radiologist was evident and this was a positive aspect of the relationship, where each professional could play their part and work together. Once again the teamwork appeared to be choreographed, but in this team the radiologist would always take the lead role and the DRs more of a supporting role. This teamwork was evident in CT.

> *"There was a good dynamic between the DR and radiologist in CT. there was a lot of banter, joking and also evident team-working. The relationship was a mixture of formal and informal chatter."*
>
> ***Observation 29/8/08, CT.***

The formal interactions were largely about the patients and the examinations scheduled. Whereas the informal chatter included social conversations which were about subjects outside of work, this helped the DRs and radiologists to mix on a social level, and to treat one another as equals.

> *"During a biopsy procedure there was evident team work between the DR and the radiologist. Each knew what their role was in the procedure and they were able to help one another."*
>
> ***Observation11/11/08, CT.***

During her interview Supt DR4 (in charge of CT at the time of the research) said that she felt that this was a strength of the team in CT that DRs and radiologists worked together well.

> *"We have a good working relationship with radiologists and radiographers that rotate into CT."*
>
> ***Interview with SuptDR4.***

CT is an area where the DRs and radiologists work together quite closely and because CT is staffed by a small team of DRs who work there most of the time the team is used to working together and the radiologists are used to working with these DRs. Perhaps this was why there was a good working relationship between DRs and radiologists in this particular area.

It appeared in this DID that the DRs and radiologists here have a good working relationship. In most areas of the DID each profession worked independently, but when they worked together, they worked together as a team. There was, however, reluctance to support further role development for DRs. This may be due to the historical dominance of the medical profession or due to the particular characters working in this DID. Price (2008a) says that these problems can be attributed to radiologists' attitudes and their creation of barriers to role development, radiologists having a 'hold' on certain imaging modalities and techniques, resistance to change, and their need to

keep up their own skills rather than DRs taking these skills on. Radiologists need to change their attitudes so that extended role and advanced practice amongst DRs is accepted and supported. The monopolistic effect and the dominance of radiologists strongly contribute to the limitation of role development, particularly in the dominated profession (radiography).

The future development of the profession is at stake and in a culture where advanced practice is not supported, DRs will not be able to progress to advanced and consultant practitioner positions. It seems that the radiologists are providing a barrier to the future development of the diagnostic radiography profession.

6.5. Discussion and story telling.

In every area of the DID when I was observing I noticed that DRs discuss their work with one another as they are doing it. DRs discuss their patients, request cards, their images, the patient's previous images, colleagues, the rota and how to do things. This mainly occurred in the viewing areas of the DID.

> *"The DRs discuss their images, and ask the opinion of their colleagues – are my images acceptable? Would you repeat this image? How do I need to reposition the patient to correct this image?"*
>
> ***Observation 11/8/08, Area C.***

A lot of this discussion about work was to gain positive reassurance from colleagues.

> *"The DRs discuss their patient and their images in the viewing area."*
>
> ***Observation 13/8/08, Area C.***

DRs also discussed interesting or unusual situations with colleagues, often to ask for advice but also to share their experiences.

"One of the DRs checks the clinical history on a request card with a colleague. The DRs discuss pathologies and interesting cases in the viewing area."

Observation 20/8/08, Area C.

"The DRs discuss patients with unusual conditions who had visited the department over the past week."

Observation 9/9/08, Area B.

The DRs also looked at their resultant images and they would consult with a colleague to see if they would agree that the images were diagnostically acceptable. This was also to seek reassurance.

"The DRs discuss their images with one another."

Observation 2/10/08, MRI.

"Discussion about images produced."

Observation 12/8/08, Area C.

I also observed DRs discussing challenging patients with one another before they started an examination in order to obtain some advice and decide upon the best course of action.

"The DR and the student look at images in the viewing area and discuss the position of the patient."

Observation 23/10/08, A&E.

"A request for a baby to have skull X-rays has been received. The DRs discuss together how to position the baby for these images."

Observation 17/10/08, Area C.

The manager offered an explanation for this behaviour in his interview.

"Well you have got that immediate availability of the other person's experience, ...and I think that's a very positive thing ... there is lots of integration of the team in that area and it is part of the supportive network that they build up."

Interview with Manager.

Hafslund et al. (2008) in their paper on evidence-based radiography comment that radiography is reliant on tradition and on subjective experience. DRs tap into that experience by asking the opinions of their colleagues. Southon (2006) agrees with this sentiment, saying that DRs support one another in the

practice environment and this support includes the sharing of expertise and knowledge. Larrson et al. (2008) also say that DRs use their knowledge to make practice decisions and that this knowledge is communicated amongst colleagues.

Hunter et al. (2008) in their ethnography of the neonatal unit found that nurses often sought guidance from one another and called on the more experienced staff for advice. Street (1992) and Wolf (1988) also say this on their wards; nurses would refer to other colleagues for advice. Wolf (1988) also comments that staff would go to colleagues rather than written policies for advice. This was true for my study. It seems that DRs find it easier to ask a colleague that they trust for advice than to go and try to find the answer in a textbook, or from written protocols or procedures.

This appears to be an environment conducive to learning from and with one another, although the DRs may not see it as such. The DRs learn whilst doing and use the experience and knowledge of others to support their practice. This fits with what Benner (2001) says about experience and expertise, she says that expertise develops when the clinician tests and refines propositions, hypotheses and expectations. Experience is a requisite for expertise and makes interpretation possible and that clinicians compare an experience with previous similar experiences. She concludes that experience is the refinement of preconceived notions and theory through encounters and situations. So DRs tap into the expertise of their colleagues by asking for advice or discussing a situation and those offering help and advice will often cite a previous, similar situation in their advice.

Heath et al. (2000) in their paper on workplace studies maintain that the use of documents has an influence on the practicalities and how people work. Many of the research texts about ethnographic studies recommend the analysis of documents used in a culture (Denzin and Lincoln, 1994; Davies, 1999). Prior (2002) says that we need to look for the processes and circumstances in which a document was produced.

However, as expressed in the methodology section (p95), there were relatively few documents used in the DID, most of the documentary information was factual and contained protocols and procedures. These documents included radiation protection regulations, health and safety policies and procedures and examination protocols. The documents were either displayed on notice boards or kept in files in the viewing areas so that DRs could refer to them if necessary. In reality the DRs did not refer to these documents very often during the observations and relied more on their colleagues for information, a finding shared by Hunter et al. (2008) and Wolf (1988) in their nursing ethnographies.

Perhaps we need to ask why it is that DRs rarely refer to the regulatory, policy and procedural documents, is it because they already know the information so well? This appears to be part of the reason; DRs are used to following protocols and procedures every day. The set patter of speech that a DR tends to use with their patient has already been discussed and this is used in order to ensure that all procedures are followed. It also appears that some of the documents are not user friendly, and so DRs tend to ask a colleague as

this is quicker, and they can understand more easily. Also, because of the team working and the ease with which DRs discuss their work with one another, it is a natural progression to rely on their colleagues for information and so they do this as a matter of course.

Story telling was also commonplace within the DID, particularly during quiet periods or breaks.

> *"Whilst sitting in the staff room during their break the DRs tell stories about the patients they have seen this morning, on-call and in out-of-hours situations."*
>
> ***Observation 11/8/08, Staff room.***

These stories are often about other staff members or difficult situations.

> *"SenDR7 tells the other DRs about a patient in A&E who had a cervical collar badly fitted and how the nurses didn't understand why this was problem and made imaging him difficult."*
>
> ***Observation 13/8/08, Area C.***

They also talked a lot about bodily fluids whilst eating!

> *"Discussion about nasty experiences and about bodily fluids."*
>
> ***Observation 3/9/08, Staff room.***

Sometimes these discussions and story telling sessions occurred whilst the DRs were working, when they recounted experiences they had had or incidents that they had been involved in.

> *"The DRs talk about some difficult and challenging patients they have had to deal with."*
>
> ***Observation 2/10/08, MRI.***

Stud2 saw this story telling as being competitive.

> *"When we get together it's well 'we've had all this', 'we've seen all this, that and the other' and all of the stories come out."*
>
> ***Interview with Stud2.***

She felt that DRs often competed with one another to tell the 'best' stories or to see who had had the 'worst' experiences.

It seemed, from my observations that when they were together, the DRs quickly lapsed into story telling about work. Sometimes these story telling sessions went on to become competitive, i.e. who could tell the worst story! Brown (1998) in his book on organisational culture says that stories and story telling are important parts of the life of an organisation. Allen (2004a) says that a repertoire of stories and the ability to identify appropriate occasions for telling them are important requirements in becoming a competent member of an occupational group. I felt myself being drawn into the story telling conversations and on several occasions I also became a story teller. This was a benefit of being a DR, and as a practitioner I was able to relay stories from my own practice. This was due to my insider status, and the fact that I knew the language to use.

Wolf (1988) said that on her ward the nurses would tell stories to one another about their previous experiences. Decker and Iphofen (2005) say that the viewing areas and tearooms in a DID are environments in which the radiography profession is discussed whilst it is being practised.

Within the culture of the DID, story telling is about belonging. This is something that I quickly slipped into as a DR, I became part of it, and I was able to tell my own stories, recounting my own experiences. This ensured that I became part of the culture and my credibility as a DR was seen.

On occasions the DRs used story telling to justify their actions to their colleagues. They used story telling to explain why they had made certain

decisions. It seemed that when the DR was trying to justify their actions the story was embellished, in order to have more of an effect on the audience.

The DRs also used story telling and talking about their work as an opportunity to state their position on issues. For example if the DR was not happy about the way they had been treated in a particular department they would tell a story about an experience and emphasise their point.

So what does this say about the radiography profession? DRs like to share their experiences with one another and it was part of the culture when sitting in the staff room or standing in the viewing area to tell stories and share experiences. Story telling and listening to stories could be seen as an informal type of reflection on action, although the DRs would probably not see it in this way. After all, the DRs are listening to an experience and thinking about what it was like for the DR involved and after hearing the story they may well make suggestions out loud or perhaps think about how they might have dealt with the situation. DRs do reflect on their work but they are not very good at formalising this. As an educator I think it would be useful to suggest that DRs make this more of a formal process and learn from one another's experiences. After all, story telling appears to be something that DRs do naturally and it could be used for future development.

6.6. Role modelling.

In many studies of work-based culture and the process of learning a profession, role modelling is mentioned. The process of learning to become a DR was a concept I was interested in exploring as an educator. I was

interested in students' learning in the clinical environment and I felt that the teaching and learning of students was a part of the culture of the DID.

> *"I watched Stud7 observing the DRs and asking questions about what they were doing."*
>
> ***Observation 17/11/08, Area C.***

The students often observed the DRs doing their work, particularly the first year students.

> *"Stud7 and Stud8 observed SenDR6 and SenDR8 imaging an in-patient. They spoke to me about what they were looking at and how they learnt a lot from observing DRs doing their job."*
>
> ***Observation 24/11/08, Area C.***

When talking about learning how to become a DR, both during my observations and interviews, staff members were able to express how they did this. Whilst talking to DRs in A&E;

> *"SenDR16 suggested to me that we assimilate the culture in order to fit in."*
>
> ***Observation 14/8/08, A&E.***

In her interview DR4 said that she learnt how to behave as a DR by observation and role modelling.

> *"...by looking and observing the mannerisms of other people and I wouldn't say that I'm after any one person in particular that you tend to look at the way they do things ... and you end up being lots of radiographers all rolled into one."*
>
> ***Interview with DR4.***

IA4 also said that she had learnt what to do by observing others.

> *"I was able to watch other people all in their roles before I had to do it myself. I sort of learnt through other people's experiences."*
>
> ***Interview with IA4.***

The manager was very much aware of this, and was keen to point this out in relation to how students learn from behaviour that they see in practice than from what is said to them in the classroom, a sentiment I agree with.

> *"The students will pick up much more quickly the attitudes of the professional qualified staff than you can even believe is possible. They will learn their behaviour far more from what you do than what you say*

and far more from what they actually experience and see in the department."

Interview with Manager.

These comments suggest a type of 'apprenticeship model' of learning where the learner spends time with the experienced practitioner in order to learn the skills of the trade. Although this can be helpful it is important to acknowledge that radiography is not a just a psychomotor job, it also involves the application of theory to practice and students need to understand the underpinning theory as well as being able to carry out the practical aspects of the job. As a practitioner I could see the importance of learning the practical skills and as an educator I also was aware of the need of underpinning knowledge. Observation of practice by students was similar to my observational role as a researcher, we were both observing to learn about the culture. However, as a researcher I was permitted to ask awkward questions about what I was seeing, whereas the student does not always have this opportunity.

DRs talked about how they learnt from other DRs and were able to decide either to copy their behaviour or do things in a different way. In their interviews both SenDR7 and SuptDR4 expressed this.

"You look at your peers and you look at some of them and I think you instantly know you know I'd like to be a radiographer like he or she is."

Interview with SenDR7.

"Observations and standing back taking note of what people do and then applying it to your own practice and making your own decisions about what things work best for you and things that don't work best for you."

Interview with SuptDR4.

They describe a decision-making process whereby we decide which actions to copy and which not to copy. Other studies of students and environments

where newcomers have to learn a role speak about role modelling. Colley et al. (2003) in their paper about learning and becoming in vocational education and training talk about the importance of role models in identity transformation and picking up norms. Holland (1999) and Mackintosh (2006) looked at student nurses and how they learnt to become nurses. They both talk about how role models influence the socialisation of students. Smith (1992) when talking about emotional labour in nursing says that students observe professionals and from their observations they identify role models.

Humans do copy one another and the traditional nurse and healthcare training was based on an apprenticeship model that emphasised learning through copying (Pediani and Walsh, 2000). The student was not always taught to think logically, understand theory or appraise the evidence. Healthcare was defined in terms of tasks which were learnt from copying (Pediani and Walsh, 2000). This method of learning provided the ideal environment for the copying of attitudes, beliefs and values which were expressed as behaviour (Pediani and Walsh, 2000).

Baird (1996) carried out participant observation in a DID, seeing practitioners teaching and students learning. She says that "students often learn that uncritical imitation, rather than critical reflection, is the easier way to become a successful practitioner" (p15). However, she says that students also need to be able to have a critical understanding of their practice and that this is not always taught. Baird (1996) found that clinical education for students consisted by and large of learning-by-doing, and she argues that more emphasis should be placed on the application of theory to practice. So it is

not enough to just copy the behaviour of others, you also need to understand why you are doing something and be able to question the behaviour.

Lewis and Robinson (2003) carried out a study about role models in radiography in Australia. They state that, "the identification of professional role models and positive attributes is an important component of professionalization" (p13). They go on to say that role modelling is key to the development of the profession as role models provide examples which student radiographers emulate.

Role models however may not be positive and students may not be able to distinguish between a good and a poor role model. It may be that a newcomer to the profession observes poor practice and copies this. In this way poor practice can be perpetuated and this can have a negative effect on the profession.

So, how do we decide who is a good role model and who is a bad role model? None of us have perfect judgement and our decisions are made on instinct, on previous experience and on our own biased opinions. Therefore we will not always agree about who is a good role model. In reality we often pick and choose attributes from several different people to emulate.

Role modelling is therefore quite complex and involves personal judgement about which behaviours are worthy of copying and which are not.

Another issue regarding role modelling is about everyone fitting into one specific way of working. From the observations it could be seen that there were expected behaviours in the DID, and there were particular ways of working. Anything that was slightly different was commented on and frowned upon.

So then, as a profession we need to ensure that we provide good role models for future professionals. As DRs we need to feel able to challenge poor practice, this is a struggle that I can identify with, and I have written about this in the methodology section in the context of my role as a researcher. As a practitioner, educator and researcher I need to feel able to report the findings of my research, in order to improve my profession. I need to be sure that I am being a positive role model for the profession. By the same token we all need to be open to learn from our peers in order to shape the future of our profession.

6.7. Summary.

In summary, the data suggest that the relationships that DRs have with their colleagues is an important part of the culture in the DID. How DRs learn to fit in to the team in the DID is done through role modelling and learnt behaviour. DRs learn from those they work with. Often the DRs' attitude to other professional groups and the closed nature of the department causes problems with interprofessional working within the hospital. Story telling and discussion which is part of the everyday working of the DID could be utilised in a positive way for future professional development. Dark humour was used as a coping mechanism between professionals to cope with the situations they face and to

support one another in a subliminal way. So, the way in which DRs interact with colleagues has an effect on the culture in the DID. Behaviour is learnt and passed on, and so the culture develops and perpetuates.

The findings from this chapter link particularly with objectives two and three; how DRs learn to be DRs through observing others and creating role models, and how DRs communicate and interact with their colleagues.

7. Structure and Environment.

This chapter is more concerned with the environment in which DRs work and the way in which the DID is structured. There were four different themes concerned with the working environment, three of them are smaller themes and one is a key theme, 'blame culture'. The data associated with this key theme can be found in Appendix 8.

The layout of any department or workplace has an influence on the way that staff work, and the DID is no exception. It was clear that there was expected and acceptable behaviour which most of the staff conformed to. The ideas discussed in this chapter fall under this overarching theme because they are concerned with either the layout of the DID and the environment, or they are concerned with expected ways of doing things.

7.1. Blame culture (key theme).

All of the data associated with this key theme can be found in Appendix 9. Although there was not a lot of data associated with this key theme from the study, it was felt that the blame culture within the NHS influences the behaviour of staff. Blame culture became a key theme because of the way in which blame is apportioned in a large organisation and the effect this has on those working there. It was felt that the blame culture found within the DID at Anytown warranted further discussion and analysis.

A blame culture consists of a set of attitudes in an organisation which is characterised by a lack of risk taking or accepting responsibility for mistakes. This is often due to a fear of criticism and punishment. Within a culture of

blame reporting errors may result in a damaged professional image and self confidence for the individual (Waring, 2005). The health service is a competitive environment and error could be seen as poor performance. When there is a blame culture and something goes wrong, those involved will want to hold someone accountable. People working in such an environment will want to blame others in order to protect themselves. They will also worry about doing something wrong and the implications of this.

Many of the behaviours in the DID were influenced by the blame culture within the NHS, such as waiting times, apologising to patients, dealing with complaints and talking about patients 'behind the scenes'. I observed two incidents in the DID where blame for error was discussed.

> *"A member of staff from the intensive therapy unit (ITU) came to the DID to find out who had X-rayed a particular patient. All of the DRs were immediately defensive in case they had done something wrong, or that their images weren't optimal. Actually the patient had tuberculosis (TB) and the nurse wanted to arrange for DRs he had come into contact with to be screened. After this one DR discussed with me the whole 'feeling of guilt' idea further and said that as a profession we can be quite defensive, always worrying about what we have done wrong and worried about the consequences, when we should be happy to admit that we are human and sometimes we make mistakes, but move on from it."*
>
> ***Observation 13/8/08, Area C.***

It was interesting that the DRs reacted in this way initially, and were immediately on the defensive. It seemed that they had been taught to react like this, perhaps this was learnt behaviour. The DRs appeared to be concerned primarily that other professionals had a problem with their work. This 'feeling of guilt' seemed prevalent amongst the DRs.

The second incident occurred a week later.

"There was a machine fault and the patient was exposed to an unnecessary dose of radiation. The DRs discussed how they felt about this and how guilty they felt."

Observation 20/8/08, Area B.

Once again there was a defensive reaction from the DRs involved. Guilt was one of the feelings expressed. Each time it seemed that the DRs were personally taking the blame. The DR involved came across as feeling particularly guilty, even though the incident was proven to be due to an equipment fault, and it was not her error.

It is clear from these two events and from the literature that the NHS still fosters a blame culture. Rix et al. (2003) in their short paper about a radiation incident talk about two approaches to incidents;

1. Person-centred – this focuses on the failings of the individual and fosters a blame culture.
2. Systems – this accepts that we are all human and tries to counteract this with systems and procedures.

They go on to say that "the person-centred approach remains the dominant tradition in medicine" (p65). Mayles (2003) agrees with this when describing the culture in radiotherapy, saying that a blame culture prevails, particularly with regard to radiation incidents. Waring (2005) in his paper about the cultural barriers to incident reporting says that blame culture inhibits participation in incident reporting as people are worried about being found to be at fault and being punished for errors. It seems that from the two incidents observed that this is still true for DRs.

The DRs involved on these two occasions appeared to take the blame for what had happened, and continually 'beat themselves up' about it. The

second incident, where there was a machine fault was mentioned several times by DRs during the days that followed and each time it was discussed the DR involved was mentioned when discussing the incident as if it was her fault. This follows the person-centred approach where the focus is on the failings of the individual rather a systems approach which looks at the systems and procedures that need to be implemented in order to reduce the chances of errors being made.

So why is it that the NHS still seems to foster a blame culture and look to blame the individual? Hogg et al. (2007) in their paper about leadership in radiography suggest that this culture is changing and that gradually a 'no blame culture' is being engendered. However, they also acknowledge that mistakes can still lead to punishment rather than learning, resulting in perpetuation of traditionalism and hierarchy which will hold back progress within the profession of radiography.

I discussed this blame culture further with the DRs during a quiet period in the Area C viewing area.

> *"Blame culture and admitting to mistakes was discussed. DR4 brought up the machine fault from last week as she still has a feeling of guilt even though it was not her fault. The other DRs reassured her that it was not her fault, although admitted that if it was them they would still be worried about what had happened. Also discussed the filling in of incident forms. The DRs seemed to be worried about how this would reflect on their practice and also the consequences for them of filling out the form and how it might be handled by management."*
>
> ***Observation 29/8/08, Area C.***

The DRs appeared to behave in this way regarding the incidents observed because they were worried about how these incidents might reflect badly on them. French (2004) in an article about occupational stress amongst therapy

radiographers identifies the 'potential to make errors' as a source of stress for radiographers. She says that this is due to the acute awareness amongst radiographers of the damaging effects of X-rays if an error is made. It seems that this potential to make a mistake coupled with how this might reflect on the staff is a concern amongst DRs and has become a part of the culture, so much so that DRs are anxious about anything that could be seen as an error in their work.

There appeared to be an overall feeling of guilt amongst the DRs, particularly when it came to keeping patients waiting. DR4 expresses this in her interview.

> *"I hate it when I'm late and you keep well you just think that if that was you in the waiting room 'cause somehow when you come for an appointment you do kind of get resigned to the fact that you're gonna be kept waiting but when you see other people going in and out you just get really really agitated and what only might be a couple of minutes seems like forever (laughs) doesn't it? So I do find that pressure quite hard sometimes and I just don't like the thought that if it was me sat there I wouldn't like it. I do usually try and explain especially if you can pick up that someone's getting agitated and I always apologise when they come in because if you don't they're gonna get aggressive."*
>
> ***Interview with DR4.***

She says that she finds the pressure of the demands on the service and keeping patients waiting hard to deal with and she feels that she must apologise to her patients.

This feeling of personal guilt and the need to apologise was also talked about by SenDR7 in his interview.

> *"... there is a lot going on it's a very busy department and um and you know we all are under pressure you know to again uphold the service to the patients."*
>
> ***Interview with SenDR7.***

He obviously feels that the service provided by the DID is his responsibility as a DR and he feels under pressure to ensure that the service provided is a good one.

This was also observed in Area B.

> *"DRs say that they are fed up with apologising to patients about the long wait this afternoon."*
>
> ***Observation 11/11/08, Area B.***

I too experienced personal guilt as a researcher. On one occasion this was written in my observational notes.

> *"There is only one DR left in Area C, the others are off at tea break or busy. I wish I could help out, I have a feeling of guilt as I am not able to help, and this is not why I am here."*
>
> ***Observation 17/11/08, Area C.***

It seems that this guilt is part of the culture within the radiography profession, as I too was a part of it.

From the data it appears that in the NHS there is still an underlying culture of blame, and that the staff members conform to expected patterns of behaviour. This includes how errors and mistakes are accounted for, and how the staff members feel about a less than perfect service for their patients. This includes delays and waiting times for patients, which the DRs at Anytown see as a poor service. This can be seen from the data on numerous occasions. So, this culture of blame still exists within the organisation of the NHS.

It may be that the blame culture and attitude towards blame and error comes from the way in which the NHS is viewed by the public via the media. The

NHS is constantly being criticised by the media. A lot of this criticism is about failure to meet targets and minimum standards expected by the public. There have also been high profile incidents that included some form of cover up, such as the Bristol Royal Infirmary Inquiry, and it appears to the public that NHS staff are reluctant to report errors for fear of punishment or being personally blamed.

Since the implementation of clinical governance in the late 1990s (DH, 1997), a no blame culture should have emerged within the NHS. Clinical governance aimed to improve the quality of NHS services and safeguard high standards (Scally and Donaldson, 1998). The series of high profile failures and errors in the NHS reported in the 1990s threatened to undermine public confidence in the NHS. Since the late 1990s the National Institute for Clinical Excellence (NICE) and the National Service Frameworks (NSFs) have been important in setting quality standards within the NHS. The Commission for Health Improvement (CHI) has also been instrumental in inspecting clinical governance within NHS organisations. Along with the NHS Plan, NICE, CHI and professional regulatory bodies have sought to improve the quality of the service provided to patients by setting performance targets. Then in 2008 Lord Darzi's report (DH, 2008) looked at the quality of the service provided to patients along with maintaining performance targets.

It is in this current climate of bureaucracy, with accountability and targets that the NHS sits. It seems from the results of this study that professionals still have a fear and a reluctance to report errors that may damage their own

reputation, or that of their colleagues and bring down the standing of their department.

Patient complaints were discussed on several occasions during the study and it was clear that DRs do not wish to receive complaints from patients about them or the DID. Their strategy to guard against this was to apologise to patients.

From the data is can be seen that a blame culture still exists within the NHS. The DRs appeared to take the blame for any errors or anything that was not as good as it could be.

7.2. Structure, organisation, routine – the way things are done.

During the first few days of my observations I picked up a lot of the routine of the DID and how the systems worked. For example I quickly became aware of how the DID was managed and staffed. It was easy for me to understand how the DID worked and the systems involved due to my knowledge as a practitioner. I was introduced to the way in which the patients present to the DID for their imaging procedure and how they move through the DID. During my first week I noted this information when in Area C.

> *"The SenDR does the administrative work. Request cards arrive in the viewing area when the patients arrive in the DID. The DID has its own porters for in-patients. There are no appointments in this area of the DID. The SenDR sorts out lunches and tea breaks. The rota is organised by the SuptDRs. Theatre requests are brought to the DID the day before the case and discussed with a DR, then the case is logged in the work diary. Theatre and mobile radiography is covered by two DRs from the main department as and where needed. The DRs have a 20 minute tea break in the morning and afternoon and one hour for lunch."*
>
> ***Observation 11/8/08, Area C.***

"Keys for the mobiles and theatre C-arms are kept on a hook in the viewing area. There is a bed bay in main reception for in-patients to wait in. Porters take patients back to the ward after X-ray, and there is a system for letting them know that the patient is ready to go back to the ward. There is a set place to put request cards before, during and after an examination. It is expected that DRs tidy the room after using it, as it needs to be ready for the next patient."

Observation 13/8/08, Area C.

I could also do this for all of the other areas of the DID, illustrating that there is a system of work and a set way of doing things. In their interviews the DRs also comment on this structure and organisation;

"When I do a senior duty I have to be in charge of an area."

Interview with DR4.

DR4 means that as a senior DR in one area of the DID, she is responsible for the work in that area and for managing the staff working there. This includes ensuring that all of the work is done and that there are enough staff. The designated senior DR is responsible for this, and this is expected behaviour for someone in charge of an area of the DID.

StudDR2 wished to point out that in relation to the way that DRs work she sees them as working in a structured and methodical way. She had learnt to work in the same way herself, and saw it as the way in which DRs work;

"We are methodical in what we're doing."

Interview with Stud2.

The DRs developed a pattern to their work. There appeared to be a set way of carrying out tasks. There was a queuing system for patients, which everyone understood and used so that patients were imaged in the correct order.

"There is a system of knowing which patient is next."

Observation 29/8/08, Area C.

Within each of the X-ray rooms, everything had its place and when observing examinations I noticed that the DRs worked to a set sequence in which tasks were carried out, this made it easier for teamwork as the DRs tended to conform to a set pattern of work.

> *"Everything is in its place in the room. There is a sequence or system during an X-ray examination."*
>
> ***Observation 3/9/08, Room 3.***

As mentioned before, DRs need to work to set protocols and procedures within the DID. This has an influence on the way that they work.

> *"DRs use protocols and procedures for examinations. There is a system of work, a way of doing things."*
>
> ***Observation 9/9/08, Area B.***

Most of the time DRs tended to look ahead and get ready for the patient and for the examination beforehand. This involved setting the room up ready before calling the patient in. This could have been the way that they had been taught to work or they may just like to be well prepared.

> *"The DRs tend to set the room up ready before calling the patient in."*
>
> ***Observation 17/11/08, Area C.***

Other authors speak about routine within a culture. Beals et al. (1977) say that in a culture there are laws and principles that account for development and perpetuation of practices. They say that part of a culture is the development of learnt behaviour for newcomers. Davies et al. (2000) extend this into healthcare in general, saying that healthcare workers develop common ways of doing things. Researchers working in specific departments or wards also make this observation. May-Chahal et al. (2004) carrying out research in A&E comment that the department has a set way of doing things, Hunter et al. (2008) working on the neonatal unit commented that new staff had to 'integrate'

and understand 'the way we do things here'. Street (1992) and Wolf (1988) in their ward ethnographies say that there are habitual routines and set patterns of behaviour. Radiography research also talks about structure within the profession. Larrson et al. (2007) say that radiography work is highly structured and Decker and Iphofen (2005) say that the DID is a protocol-driven environment. Sim and Radloff (2008) say that there is a culture of conformity in radiography and Sim et al. (2003) say that practice in radiography is embedded in protocols and routines. Hafslund et al. (2008) agree with this notion saying that radiography is reliant on tradition and subjective experience.

From the results of this study and other work it can be seen that radiography is governed by routine. DRs tend to work to a routine and having a routine appears to be an important part of the culture and expected behaviour. It could be argued that this is due to the tight regulations concerning the use of radiation. Or it may be due to the tradition of the profession and the way in which new members of the profession become socialised and therefore continue to work in the same way. It appears to be important for DRs to have a routine and to work in a structured way. It is probably possible to do a good job without working in a structured manner but the other DRs will feel uncomfortable with this and like anything slightly different from the norm it tends to be 'squashed' out by the DRs and by the culture itself, and thus certain 'ways of doing things' prevail. Within a culture it is common to have set behaviours and routines. This behaviour is passed on to newcomers to the culture through role modelling.

The place in which DRs work, and the layout of the DID also has an influence over the structure and routine of the department. For example, the layout of the DID may provide restrictions on where patients can wait, how patients move through the department, where items are stored and where equipment is located. So space and place also has an effect on the way things are done and this works alongside the routine and the way of working.

Because of the nature of their work and the way in which the DID works it is possible for a DR not to be aware of what is going on outside of their area of the DID. It is possible for a DR to work in isolation or just with their own small team in one area of the DID and not to see the bigger picture of the DID or the hospital as a whole. The manager commented about this tendency in his interview.

> *"Naturally radiographers don't think about their colleagues that they can't see... we're trying to get radiographers to think far more about the system and the bigger picture and what's going on across the whole department."*
>
> ***Interview with Manager.***

It was felt amongst the management team that senior staff were much more aware of the bigger picture than their junior colleagues and that this was not just an issue in the DID, some ward staff also did not see their role in relation to hospital-wide issues.

> *"Take the A&E targets they are a whole hospital issue but are often seen as an A&E problem. So a nurse on one of the wards will try and prevent her bed from being clear for her own reasons and not think about how not having that bed clear may have a knock on for A&E."*
>
> ***Interview with Manager.***

SuptDR1 shared this perspective.

> *"I also see things from a different perspective now... as a radiographer I saw things differently... the higher you go up you start to see things not only from the ground floor level but what's going on higher up... and the NHS as a whole... and the targets we're expected to do. The*

trouble is if we don't hit all of our targets then that affects our funding and it affects our application for foundation status... these are a lot of the things that junior radiographers are not aware of."

Interview with SuptDR1.

I could not find anything further in the literature regarding this issue in radiography specifically. However, Benner (2001) says that expertise comes from experience and the more experienced practitioners will look at the bigger picture. She goes on to say that organisational demand, understaffing, prioritisation of workload and organisational skills are all paramount in an expert clinician.

It does appear that junior DRs do not always see the bigger picture and are not always aware of their role in the hospital or the service as a whole. Because of the nature of their work a DR may not need to interact with any other professionals other than those in their own department. This makes it difficult for them to foster good relationships with other professionals. This may explain why DRs are challenged when it comes to interprofessional working. DRs need to change their sometimes blinkered attitude. They need to have a greater awareness of the patient's pathway and the bigger picture of the hospital as a whole, and it may be that the physical layout of both the DID and the hospital is not helpful for this.

7.3. Workflow.

The DID was fast-moving and busy most of the time I was there. I observed DRs waiting to use the X-ray rooms and the knock on effect to the time patients spent waiting for examinations. This was particularly evident in Areas B and C, where there were no appointments.

"DRs are waiting to use X-ray rooms. There is a pressure to get through the list of patients. Patients and tasks are prioritised."

Observation 11/8/08, Area C.

In Areas B and C none of the patients had an appointment as it was an 'open access' system for out patients and in patients were brought from the wards when the porters could collect them. Often there would be many out patients and in patients waiting to be imaged in the three X-ray rooms of Areas B and C.

"The DRs are becoming stressed about the lack of availability of X-ray equipment."

Observation 20/8/08, Area B.

Whilst I was there observing one of the X-ray rooms was out of action in Area B. It was due to be replaced soon but at the time the staff were really feeling the pressure and the lack of available equipment when the DID was busy.

"DRs comment that there are not enough X-ray rooms."

Observation 20/8/08, Area C.

I observed that many times there were staff waiting for X-ray equipment and lots of patients waiting for examinations.

"There appear to be a lot of staff all waiting for an X-ray room, and lots of patients waiting."

Observation 9/9/08, Area B.

The DRs did try to manage the workflow and reduce the patient's waiting time wherever possible. This involved several strategies and much discussion between the DRs.

"The DRs discuss how they will manage the workload as there is now a one hour wait."

Observation 29/8/08, Area C.

Patients were often moved from one area of the DID to another, and staff were sometimes re-deployed to the busier areas.

"The DRs try to manage the workflow by collecting and moving patients around the department and helping out with staffing."

Observation 9/9/08, Area B.

DRs would try to help one another out and work in teams or in pairs to try to get through the work at a quicker pace.

> *"The DRs try to be quick and efficient to increase the throughput of patients."*
>
> ***Observation 18/9/08, A&E.***

The patients were moved out of the X-ray room after the examination rather than waiting in the room whilst the images were checked, this allowed for another DR to use the room with another patient.

> *"DRs are in and out of the rooms, trying to get the work done quickly and efficiently."*
>
> ***Observation 11/11/08, Area B.***

On a few occasions if the fluoroscopy room was not being used for a booked list, it would be used for out patient imaging examinations to reduce the pressure on the other X-ray rooms.

> *"Work is evenly distributed between X-ray rooms in order that all patients are seen as quickly as possible and the rooms are well utilised."*
>
> ***Observation 17/11/08, Area C.***

It was interesting that when the DID was busy, there appeared to be a sudden sense of urgency amongst the DRs. Everyone would become a little more stressed and a little more anxious, and they would employ the measures described above to manage the workflow. Yet, when it was quieter in the DID, none of these measures were implemented, even though this could make for smoother running of the DID at all times. It appeared that the DRs would only spring into action when it became busy and at other times they were content to continue as usual and not really give a thought to how things could be improved all of the time.

When questioned about workflow and prioritisation of patients the DRs were evidently conscious of the amount of time spent with patients and the workflow within the DID. In their interviews the DRs talk about this issue.

> *"I'm often waiting to get into a room."*
>
> ***Interview with DR4.***

DR4 confirmed my observation about DRs waiting to use equipment. The DRs are obviously conscious about the time factor.

> *"You're always aware of the time."*
>
> ***Interview with IA4.***

IA4 is obviously also conscious of the time. She generally worked in areas of the DID where patients had appointment times, so keeping to time was important for her.

> *"It's very fast moving, there is a lot going on, it's a very busy department and you know we are under pressure to uphold the service to the patients."*
>
> ***Interview with SenDR7.***

As a senior DR, SenDR7 was very conscious of the service provided to the patients, particularly when he was in charge of an area. He felt that he was responsible for upholding the service provided to the patients. He was referring particularly to out patients who would attend the DID without an appointment and would expect to be seen within a reasonable time.

Supt DR1 talked about time pressures in CT, and how the appointment times had changed from being 30 minutes long to being 15 minutes long, due to the demands on the service.

> *"In CT patients were booked every half an hour and now we are whipping them in every 15 minutes because the demand is so huge."*
>
> ***Interview with SuptDR1.***

DRs end up prioritising their work in order to deal with emergencies and to see as many patients as possible. IA4 has seen this in action within the DID,

where an emergency case has come up and been slotted into a list of patients as it was urgent.

> *"You have to prioritise work... you have things that just come up last minute... it's always about juggling."*
>
> ***Interview with IA4.***

I observed the DRs trying to prioritise the workload by reading through the request cards and deciding which patients would need to be seen first.

> *"The DRs like to look at and shuffle the request cards in order to prioritise the patients."*
>
> ***Observation 24/11/08, Area C.***

The DRs also felt that patient care could suffer as a result of the workload. IA4 felt that it was important to strike a balance between giving the patient enough time to make them feel valued and not getting behind with the appointments.

> *"You have to get a balance between not hassling them up but not getting them in and out too quickly."*
>
> ***Interview with IA4.***

SenDR2 describes a feeling of guilt about rushing her patients and not having enough time to listen to them.

> *"I often feel quite guilty... trying to hurry them up you know 'cause I really do want to listen but obviously... the pressure of workload makes you not have or give them the time that they probably need."*
>
> ***Interview with SenDR2.***

Supt DR1 also talks about this tension between wanting to talk to the patient and giving them enough time but also getting through the workload.

> *"The throughput is so intense we don't have the time that we'd necessarily want to give to our patients... sometimes, when you see a radiographer holding up a room chatting to a patient you think come on, come on, you can't chat to the patient in the X-ray room, take them out because I need to get the next patient in."*
>
> ***Interview with SuptDR1.***

She describes how she feels when she sees other DRs talking to patients in the X-ray room when it is busy. She describes this as the DR 'holding up a

room'. What she means here is that whilst the DR stays in the room talking to the patient, the X-ray room cannot be used by another DR to image another patient. She is conscious that this is causing a delay, and although she is not happy with her thought process about this and feels that this would deprive the patient of some quality time, fundamentally she is more concerned with keeping other patients waiting.

When questioned about this in her interview SuptDR4 felt when working as a DRs, there was very little time to spend with the patient. She feels that there is a lot of pressure on your time.

> *"You don't get a lot of interaction time with the patient."*
> ***Interview with SuptDR4.***

SuptDR1 took this one stage further and suggested that the pressure on throughput within the DID had an effect on the care that the patients received in the DID.

> *"The throughput does affect the patient care."*
> ***Interview with SuptDR1.***

Other writers in nursing mention workload. Annandale et al. (1999) in their ethnography of A&E say that staff members like to control the workload in order to maintain a steady flow of patients. This was certainly true in this DID. The DRs commented to me during my observations that they preferred it when there was a steady flow of patients, they did not really like it to be too quiet or too busy, and they preferred a happy medium.

Street (1992) and Wolf (1988) in their ethnographies of ward nursing say that the nurses often have to balance targets and patient care, and that nurses

develop habitual routines for efficiency. Theodosius (2008) in her book about emotional labour in nursing comments that "the pace of the ward can often feel uncomfortable, operating a fine line between safe and dangerous" (p3).

Radiography writers echo the findings of this study. Whiting (2009) in her editorial on promoting professionalism in radiography says that often speed and efficiency is valued above effective communication. Murphy (2006) agrees with this, saying that the current trend in radiography is around maximum efficiency, seeing as many patients as possible. Decker and Iphofen (2005) also say that patient throughput is important in radiography. Henwood (1996) comments that DRs are often too tired or too busy to maintain quality or patient care. Booth and Manning (2006) consider that DRs try to control workflow by dealing with patients in what they perceive to be the most efficient manner by controlling the interactions.

At times it seemed that the product of the interaction, the diagnostic image and the tasks involved in image production took precedence over the process of looking after the patient and ensuring that they received good quality care. This is an inevitable result of working in a target driven environment where the number of patients seen and the throughput of the department are prioritised over the quality of the service and the interactions between the patients and the staff.

It is a fact that the demands on the radiography service have increased significantly. "Diagnostic imaging and interventional services have increased by 2.5-5% per annum over the period of the last 10-12 years" (SCoR, 2006

p6). It seems that DRs do feel this pressure and the workload can become a big issue for them. However, it also seems that high workloads are an expectation and have become the norm within the NHS. DRs often talked about their workload and it was a common topic of conversation, this helped the DRs to offload to one another when it was busy. On some occasions when I was observing the workload could have been managed better, but generally the DRs worked hard and were working under a lot of pressure.

7.4. Behaviour in different areas.

I noticed that the DRs displayed a professional attitude and appearance in their work. It needs to be noted that DRs wear a uniform and when the patients were present that DRs behaved in a professional manner. Stud2 expressed this in her interview.

> *"When the patients are around there's always that level of professionalism, when you've got a patient there... everyone does communicate in a professional way."*
>
> ***Interview with Stud2.***

Many writers talk about the professional demeanour and how the wearing of a uniform fits with this. Allott and Robb (1998) call this 'the cloak of professionalism' and claim that health care professionals can hide beneath it and behave in the way that is expected, for example being in control of their emotions. Holland (1993) says that putting on the uniform symbolises taking on the identity. Rudge (1995) takes this idea further, saying that when wearing a uniform, people's expectations of you and responses to you change. Becker et al. (1961) say that the uniform symbolises the person's position in the organisation. They go on to say that once a professional is in uniform the patient tends to accept and trust their judgement. This is a sentiment shared by Francis and Hester (2004) who maintain that the wearing

of uniform allows professional dominance and the imposition of power. Smith (1992) says that professionals can 'act the part' and suppress their real feelings, "wearing my uniform is associated with my role as a nurse" (p41).

Goffman (1959) calls this 'impression management' and Taylor and White (2000) say that this behaviour leads to professional detachment. The whole taking on of a professional role and the wearing of the uniform allows the DR to act out the role and behave differently from when they are not at work.

Dress or clothing can also be a shared symbol within a culture. So, in this case, the uniform that a DR wears is all part of their identity within the culture of the DID. Allen (2004a) says that "uniform is a signifier of group membership, status and rank" (p18). The wearing of a DR's uniform shows that the DR belongs in the DID, and therefore is a part of the culture of that department. I wore my uniform whilst carrying out my research and this helped me to fit in. There are also certain ways of wearing the uniform, DRs have to conform to the uniform policy of the Trust and so for example only certain footwear and jewellery is permitted. Most of the DRs wore the same or similar footwear and I also noticed that they tended to wear their identity badge in the same place on their uniform. This is another way of demonstrating that you belong, by conforming to group norms, by copying behaviour and dress codes in order to fit in. Within such a culture one does not want to look out of place.

It became apparent, right from the start of the study that there were expected behaviours from staff in different areas of the DID. It was evident that all of

the staff followed this pattern of behaviour and that there was a definite delineation between areas where patients and DRs interacted; such as the waiting area, corridors and X-ray rooms, areas where staff were working; such as viewing areas and control rooms in CT and MRI, and areas where staff only were present and relaxing, such as the staff room. Behaviour in these three areas was very different. For example in the viewing area, some social interactions occurred.

> *"There is a level of banter between the DRs in the viewing area."*
> ***Observation 11/8/08, Area C.***

DRs often joked with one another, but this did not escalate too much as patients were within earshot, and could hear staff in the viewing areas of Area B and C.

> *"The viewing area is a social place, where DRs discuss their work."*
> ***Observation 20/8/08, Area C.***

Often the chatter in these areas centred on work. The viewing area in Area C was the 'hub' of the DID, DRs would come into this area first thing in the morning for a 'catch up'

> *"Social chatter in the viewing area."*
> ***Observation 23/9/08, Area C.***

However, in the staff room, the DRs would openly discuss patients and experiences, knowing that they were not being heard by patients.

> *"DRs discuss this morning's cases and tell stories about their experiences."*
> ***Observation 23/10/08, Staff room.***

The control rooms in CT and MRI and the viewing area in Area B were also social spaces where DRs congregated. The control rooms were slightly different as patients could not hear the interactions going on, but often they could see the staff through the control room windows.

"The control room is the 'hub' of CT, here is the CT computer, telephone, computer, patient request cards file, and appointment lists. The DRs congregate here."

Observation 11/11/08, CT.

"The viewing area is a social area where staff chat and gossip. Often other staff come into the viewing area to talk."

Observation 11/11/08, Area B.

As the Area C viewing area contained the rota and shift patterns, DRs would often come into the viewing area to look at these. In my opinion, some staff used this as an excuse to escape from where they were working and socialise with other staff. Also, Area C had the most staff working there at any time, so it was a good place to come to for a chat. DRs would also come and have a moan about where they were working, or who they were working with.

"DRs come in and out of the Area C viewing area to look at the rota. DRs come into the viewing area to complain about where they are working. When there are no patients waiting the DRs stand in the viewing area and chat. Students may also participate."

Observation 24/11/08, Area C.

Some staff would include students in their conversations and allow them to be a part of the team, but others did not do this. Lave and Wenger (1991) talk about this and call it 'legitimate peripheral participation', they describe it as the way that newcomers are slowly welcomed into a culture or group.

When asked about the difference in behaviour in different parts of the DID, the DRs talked quite freely and agreed with this observation.

"Well, there's three levels aren't there? There's the patient area, the social area that's within patient earshot, and the no patients around area."

Interview with Manager.

The manager used the same three categories of areas that I had described.

"We have two sides, one side where we have to be professional to the patients... but then behind the scenes it's always like a laugh and a joke."

Interview with DR1.

DR1 saw it as two different places, one place where patients were present and one where there were no patients. She also comments that the areas of the department without patients are places where the DRs can laugh and joke. DR4 talks about how she learnt how to behave in different areas in the DID, and found out what was acceptable and where.

> *"You soon learn to know what isn't acceptable...you're professional and you know that you have to put a professional approach into things but that you can muck around behind the scenes as it were."*
>
> ***Interview with DR4.***

SenDR2 said that DRs modify their behaviour depending on where they are and who they are with.

> *"You'll see that in different areas of the radiography department a radiographer will change how they act and how they talk."*
>
> ***Interview with SenDR2.***

Stud2 has noticed the differences between patient areas and non-patient areas, and she talks about the expectation of being professional when a patient is present.

> *"When the patients aren't around, so in the staff room we talk differently to when the patients are around but there's always that level of professionalism when you've got a patient there."*
>
> ***Interview with Stud2.***

SuptDR4 agrees with this notion and actually links the wearing of uniform to professional behaviour.

> *"It's all about the different environments... in the staff room... well you're in there with your friends... you're away from work... you're just chatting... you're detached from the patients... you know when you're with your patients it's very much you're in your uniform it's... yes I must behave in a professional manner."*
>
> ***Interview with SuptDR4.***

The layout of the DID has an influence on the behaviour of all of the staff members. May-Chahal et al. (2004) in their study in an A&E department found the same pattern of behaviour, in that staff behaved and talked

differently in patient areas than they did in staff only areas. This fits with Goffman's (1959) work on how we present ourselves to other people. He considers the way in which the individual presents himself and his activity to others, the way he controls their impression of him and the kinds of actions he takes during this performance. Goffman (1959) likens our lives to a performance where we play a part and have some control over the impressions we portray to different people depending on the circumstances we find ourselves in. He says that individuals will seek to convey a certain impression of themselves to others. Individuals often 'play a part' and 'create an impression'. The 'front region' refers to the area where the performance is carried out, performers begin their 'act' when they reach the appropriate place and terminate the performance when they leave that place. The 'front' may include clothing, posture, behaviour, speech patterns, and facial expressions. A given social 'front' tends to become institutionalised in terms of the stereotyped expectations to which it gives rise, e.g. a hospital, a library. When an actor takes on an established social role he usually finds that his role is already defined. Goffman goes on to say that "the performer may be engaged in a profitable form of activity that is concealed from his audience and that is incompatible with the view of his activity which he hopes they will obtain" (Goffman, 1959 p52). The 'back region' is the place where the performance is 'knowingly contradicted'. In the 'back regions' the performer can relax and drop his front. Different language is used 'front' and 'back' stage (Goffman, 1959). It was in the 'back region' where the DRs used dark humour and joked together. This is discussed in section 6.1 (p137).

My position as researcher and as a practitioner gave me access to both the 'front' and 'back' stage regions. I was able to see DRs at work and to note the difference in their behaviour between the different regions in the DID and also to notice the transition between behaviours. Within the DID at Anytown, the front regions were all of the waiting areas, the corridors, and the X-ray rooms, all of which were areas where patients were present. The viewing areas and control rooms in CT and MRI were also front areas to some extent, as staff members could be heard (although not seen) in the viewing areas, and seen (although not heard) by patients in the control rooms. In these areas, an impression was still important. The back areas were offices and the staff room where patients could neither hear nor see what was going on. These back areas were staff only areas.

Murphy (2009) carried out research with DRs in the UK in an MRI department and found similar results. He compared the department to a theatre using Goffman's work. He found that there were 'front regions' of the department where there was an audience – the patients, and 'back regions' where there was no audience. Murphy found a difference in language used and behaviour from DRs. He called their behaviour in the 'front regions' impression management where DRs were conscious of the impression they gave to their 'audience'. My findings correlate with the findings from this study. This is another example of learnt behaviour. It is similar to the way in which any person working with the public will behave, a professional 'front of stage' persona, and less professional and more relaxed 'back stage' behaviour. It is important to have this distinction so that DRs have somewhere to relax and 'let off steam', where they do not have to keep up the act.

7.5 Summary.

In summary, there are aspects of the environment that have an influence on the way in which DRs work. DRs also develop a pattern of working which perpetuates and becomes learnt behaviour, so that newcomers to the profession pick up this particular way of doing things and the behaviour continues and perpetuates. DRs become socialised into their profession and develop professional traits and norms and these become 'the way things are done'. The structure and routine becomes set and if someone does something slightly different the DRs do not seem to accept it, and they do not appear to be open to change. It seems that an important part of the culture is to talk about the workload and how busy the DID is. This is a form of impression management, trying to convey that they are always busy. The impression that DRs wish to convey to their patients is different from the impression that they create with colleagues. DRs learn from others how to behave in different areas of the department and know what is and is not acceptable.

All of these aspects have an influence on the workplace culture and these findings link to objectives one and two; there are several current issues around the structure and environment in which the DR works, and there are also further aspects of learnt behaviour discussed in this chapter.

8. Characterising the role of the DR

This chapter is concerned with all of the data considered to be related to the specific role of the DR. There were four themes, with three small themes and one key theme entitled 'visible product'. The data for the key theme can be found in Appendix 9.

The themes from this chapter may also be applicable to other health care professionals, however the way in which they relate to DRs is different is the focus of this chapter and some of the points raised are unique to DRs. Some themes are related to the particular job that a DR does and others are linked to the way in which DRs perceive their role.

DRs, like anyone else convey a role to those they interact with on a professional basis. Goffman (1959) says that individuals often 'play a part' and 'create an impression' We learn other people's roles be observing them and their actions. "When an individual enters the presence of others, they commonly seek to acquire information about him" (Goffman, 1959 p13). Information about an individual helps to define the situation and the expectations. Observers can glean clues from someone's conduct and appearance. This can allow them to apply previous experiences to this experience and perhaps apply a stereotype to this person. We use the observation of others to create a particular role for ourselves by acting in a certain way. We also conform to expected behaviours for that role, so that other can understand what role we are playing. DRs take on a role, normally based on what others perceive that role to be, and what expected behaviour is for that role. An established social role, such as an occupation is normally

already defined (Goffman, 1959). According to symbolic interactionism taking on a role means learning the common language and behaviour associated with that role, and becoming part of the culture through learning language, expressions and symbols used by others (Manis and Meltzer, 1978). The DR learns to behave in a certain way through observing and participating in the culture so that "the perspectives shared in a group are internalised" (Manis and Meltzer, 1978 p112). Spradley (1980) and Crotty (2005) suggest that we make meanings from the behaviour of others and this helps to shape our behaviour when we take on a new role and become part of a new group. For example students go out into practice with an idealist view of how radiography should be but they have it modified by the impact of the radiographers they come into contact with.

8.1. Visible product (key theme).

From that data this was felt to be a key theme as the radiographic image (the visible product) is something unique to the DR. Although other health care professionals produce and make use of images, such as photographs or diagrams, the radiographic image is the product of the DR's interaction with the patient and is used for diagnosis. The image is a result of the imaging procedure and it is used by the DR and by other health care professionals after the examination has taken place to aid in the diagnosis and treatment of the patient. This visible product of the interaction between the patient and the DR is recorded in time as a permanent reminder of the examination. All radiographic images have the time and date of the examination recorded on them.

On searching the literature this aspect of the DR's work was not found to be discussed anywhere in depth, and therefore it was decided that this theme was significant and worth further discussion. All of the data associated with this key theme can be found in Appendix 10.

In the previous chapter 'structure and environment' the key theme of blame culture was discussed (p174). Here an incident where the DRs were quite defensive about their work was recorded from the observations.

> *"A member of staff from the intensive therapy unit (ITU) came to the DID to find out who had X-rayed a particular patient. All of the DRs were immediately defensive in case they had done something wrong, or that their images weren't optimal. Actually the patient had tuberculosis (TB) and the nurse wanted to arrange for DRs he had come into contact with to be screened. After this one DR discussed with me the whole 'feeling of guilt' idea further and said that as a profession we can be quite defensive, always worrying about what we have done wrong and worried about the consequences, when we should be happy to admit that we are human and sometimes we make mistakes, but move on from it."*
>
> ***Observation 13/8/08, Area C.***

It seemed that the DRs were immediately concerned about the quality of the images that they had produced, and they could think of nothing else that the nurse might be coming to discuss. Immediately the reaction from the DRs was that their work was about to be criticised. They seemed to be worried that others would criticise the quality of their work based on looking at the images they had produced.

I also recorded other occasions where there was concern from DRs about their images in my observations.

> *"Some of the DRs appear to worry about other DRs seeing their images."*
>
> ***Observation 24/11/08, Area C.***

I questioned SuptDR1 about this in her interview, to find out what her opinion was. She said that DRs are very aware of the images that they produce and can be quite self-conscious about them.

> *"With CR (computed radiography) it's much more difficult to hide. If you've done an image that you think 'oh dear' about you can't just put it straight into the reject bin. It's up there for everybody to see."*
>
> ***Interview with SuptDR1.***

Because the images come up on the computer screen in the viewing area other members of staff can view your work. In the past, when radiographs were produced on film, it was easier for the DR to view their images in a more private way on a viewing box, and although this might be in the viewing area alongside other staff, somehow the image on a computer screen appeared to be more public and less difficult to hide from others.

It appeared that some of the DRs were worried about this and felt that their work was under scrutiny and could be judged by their colleagues. This is interesting as colleagues will often only see the resultant radiographic image, which is the product of the DR's interaction with the patient, and they won't see the patient or how the examination went. Therefore just viewing the image is not a good way of judging the work of the DR, as only the product can be judged, not the process. If the patient is difficult or challenging, or the examination did not go well this is not necessarily reflected in the resultant image.

In other health care professions you obviously do have a product in the form of the patient and the outcome to the patient from whatever your interaction was. However, in diagnostic radiography you have the patient and the

radiographic image as a product. The manager discussed this in his interview.

> *"Radiography is different from um say physiotherapy, you have the image. So looking the product happens to a much greater degree in radiography than say physiotherapy because there's the image, you've actually got something there to discuss you know well a physiotherapist goes out and treats a patient but none of the other physiotherapists can see that patient so unless the physiotherapist actually comes back and says well this is my patient and well describes exactly what the situation is the other physiotherapists will not be aware of it. But if you go and do a chest X-ray or any other kind of X-ray, there it comes up on the screen and actually it's in front of everyone, it's a very public area which can be, well which I think is actually in some ways far more challenging. When it's an image on a screen you can see the image coming up and then boom there it is there it is on the screen, two feet across for the world and his wife to see and usually that's when I come strolling into the viewing area and I see the radiographers worry then! So yes, so your output is far more public."*
>
> ***Interview with Manager.***

There are a number of issues raised here. The manager talks about the visual nature of the image and that for DRs, the product of their interaction is in a visual form. He talks about the fact that as a DR your work is under the scrutiny of your colleagues right from day one. All of your colleagues see your images on a regular basis and are able to make an assessment of the quality of your work. Other health care professionals will receive some scrutiny from colleagues, for example physiotherapists and nurses may see the output of their colleagues by seeing the patient after the interaction, but there is no real product associated with the interaction.

There is also the notion of producing a 'good image', as it is visible to everyone. Part of the role of the DR is to produce a diagnostic image; this means that the image provides sufficient detail to answer the clinical question and aid in the diagnosis of the patient. However, there is more to it than this; the DR is conscious that their image is under scrutiny and that their

performance will be judged on the basis of the quality of the images that they produce. Their colleagues may not see the patient but they will see the image as images are processed on the computers within the viewing area, which is a public space for all of the staff in the DID.

This links with the notion of blame as the manager mentions that DRs are concerned about their images. He indicated that the DRs would worry if he came into the viewing area and saw their images on the monitor. He felt that the DRs were self-conscious about their work.

This tells us that the DR can become quite conscious of the images that they produce. The DRs were concerned that they would be judged by the images that they produced and those that viewed images after the event would never see the patient at the time and some of the difficulties that the DR may have encountered during the examination. This can have an effect on the DR's self-esteem and their learning. This links to the key theme of blame culture and the fact that DRs appear to take personal responsibility for their images and beat themselves up if their image is not optimal.

The radiographic image can be seen as a cultural artefact. Cultural artefacts are mentioned by several writers when discussing culture. Beals et al. (1977) describe artefacts as the material part of a culture. Spradley (1980) says that artefacts are items that we make or use within a culture. This is particularly applicable to the radiographic images, as it is created by the DR and then used by other professionals in the diagnosis of the patient. So this cultural artefact is produced within the DID and then used by others outside of the

culture, but it represents the work of those within the DID. Heath et al. (2000) also see that artefacts feature in the production and co-ordination of social actions or activities. Thomas (1993) takes this a stage further by suggesting that artefacts represent a meaning. Within a DID the radiographic images are the results of the work of the DR, and they provide the meaning for the existence of the DID. The radiographic images are therefore integral to their role (Larrson et al., 2007).

The radiographic image is an important aspect of the DR's work and every patient that visits the DID ends up with a radiographic image as a record of their interaction with the DR. This radiographic image is also there for all time as a record of the DR's work. With PACS, radiographic images are filed and can be recalled to view at a later date, so this is a permanent record of the interactions between the DR and the patient. Therefore the DR values their images very highly and is aware of their significance in terms of the patient's diagnosis and treatment.

Consequently it seems that a lot of emphasis is placed on the image produced. It is easier to quantify the quality of the radiographic image than the quality of the interpersonal interaction between the DR and the patient and there is no visible record of this interaction. However, there is little success in producing an excellent diagnostic radiographic image if the patient is very upset or in a lot of pain because of the examination. Conversely there is no point in trying to keep the patient happy and pain free if the DR does not position the patient correctly for the examination and therefore does not

produce a good quality image which can be used for diagnosis. There is the need to balance these two important aspects, process and product.

8.2. DRs' views about research, CPD and evidence-based practice.

From this study it is possible to conclude that overall DRs have an ambivalent attitude to research, CPD and evidence-based practice. The DRs involved in this study felt removed from the concepts of research and evidence-based practice. There appeared to be a split between attitudes amongst the DRs; some were happy and others dissatisfied with the job.

> *"The DRs thought that I was 'mad' to be doing research, and that research was only for the select few."*
>
> ***Observation 11/8/08, Area C.***

This is an interesting concept that only a select few could be involved in research, why do the DRs believe it to be true? It seemed that some of the DRs were content with their current role and were not interested in role development or job progression. This was evident from discussions that occurred in the DID during the observation.

> *"There was a discussion about CPD and the upcoming Health Professions Council (HPC) audit. The DRs said that they didn't really have time for CPD activities. They appeared to be happy just to come to work, do their job and go home. Some did not see the relevance of CPD."*
>
> ***Observation 12/8/08, Area C.***

Because of the HPC audit, which involved auditing DRs at random from the register, the DRs were anxious. Some of them were uncertain about CPD and could not really see how it could be relevant to their work. There was also ambivalence to job opportunities and promotion from some of the DRs.

> *"Some DRs are not interested in promotion or CPD; do not want to take on extra responsibilities."*
>
> ***Observation 14/8/08, A&E.***

This suggests that some DRs appear to have low self-esteem as the profession has low status and a low public profile (Sim and Radloff, 2009). Many DRs have an inferiority complex and adopt the attitude 'I'm just a radiographer', they do not appear to push themselves forward.

There were, however, some DRs who were interested in professional development.

> *"One of the DRs talked about her linked grade interview and was showing the other DRs her CPD file. This prompted a discussion about CPD and the time needed. There was a mixed response to CPD in general. The DRs felt that CPD was linked to promotion, they considered it to be time consuming."*
>
> ***Observation 9/9/08, Area B.***

This DR was clearly enthusiastic about her own professional development and had taken her responsibility to maintain her practice competence seriously.

The time needed to undertake CPD activities appeared to be a recurring theme, with DRs having the perception that CPD was definitely extra work which was undertaken outside of work time which would encroach on their leisure time.

> *"DRs discuss the fact that they do not have time to undertake CPD."*
>
> ***Observation 24/11/08, Area C.***

Even those DRs who were positive about CPD talked about time pressures in regard to their own professional development.

> *"It is difficult sometimes to learn more isn't it? Because you haven't got time to perhaps look at an image and think well what is that, or I'll look that up later and then you forget."*
>
> ***Interview with SenDR12.***

Some of the DRs evidently wanted to learn more, but felt that they did not have the time available at work to do so.

"You don't get a lot of time to look at your images and from a learning point of view it can be difficult."

Interview with SuptDR4.

Kelly et al. (2008) also found this to be true. They found that due to increased workload and more targets to meet within the DID, many of the DRs were using their own time for CPD. There appeared to be less clinical time for these activities. This results in those who are less motivated not continuing with their own CPD.

However, some of the DRs were interested in developing their knowledge. Some of the DRs asked me regularly about how things were going with my research. I did also observe some instances where DRs showed an interest in professional development whilst I was in the DID. When it was relatively quiet one day in Area C, a discussion took place about the examination protocols and evidence based practice.

"The DRs discuss the departmental protocols for certain examinations and why different projections are taken. The DRs talked about evidence-based practice and where these decisions came from."

Observation 6/10/08, Area C.

When I was in MRI SenDR16 had been enthused by a study day she had just attended and wanted to share what she had learnt with the other DRs whilst they were working.

"SenDR16 had been to a study day about patient confidentiality issues and shared the information she had learnt with the rest of the team."

Observation 23/10/08, MRI.

SuptDR4 told me in her interview that several of the DRs had decided to start a lunchtime CPD group to meet together and look at images of some interesting cases and discuss them together.

"We've just sorted out getting together at lunchtimes as well to spend some time helping each other with CPD, moving on with some

anatomy and pathology 'cause it's something we don't get a lot of time to do. We will sit down and view some interesting cases."

Interview with SuptDR4.

Some of the DRs were enthusiastic and wanted to learn but generally in the DID there was apathy to learning.

When reading the radiography literature there is a recurring theme about the short track record of research in radiography (Adams and Smith, 2003). Many writers speak about this lack of research and evidence-based practice within the profession, encouraging DRs to carry out research in their own practice area. Decker and Iphofen (2005) take this further saying that knowledge of radiography as a profession has been based on what is written or learnt by others. They say that in the past professional development in radiography has been dominated by research from radiology (medicine) and physics, and encourage radiographers to carry out research. Gambling et al. (2003) in their discussion paper say that research needs to be further developed in radiography and the results disseminated to develop evidence-based practice. They maintain that "for radiography, the existing body of knowledge is limited" (p73). Hafslund et al. (2008) in their review article about evidence-based practice also challenge radiographers to become research active and develop best practice. They say that "traditionally, as a discipline, radiography has not been perceived by its practitioners to require investigation" (p2), and radiographers need to narrow the gap between best practice and current practice. The DRs can be a barrier themselves. Sim and Radloff (2009) found that resistance to change is prevalent in older DRs which may be due to a fear of the unknown and also a feeling of inferiority or preparedness for role

development in comparison to degree qualified DRs (diagnostic radiography has been a graduate profession since the early 1990s).

Henwood et al. (2004) looked at radiographers' attitudes to mandatory CPD in the UK and New Zealand. They conclude that there is an overall ambivalent attitude to CPD. A further study by Henwood and Taket (2008) exploring DRs' views about CPD found that the attitude of the individual, the culture of the working environment, support from the employer and external influences all have an effect on participation in CPD activities. They conclude that in order for CPD to be fully utilised there needs to be a supportive learning culture. Minton (1998) says that there needs to be a culture shift in radiography so that radiographers can link theory to practice and can become autonomous learners. She says that "in order to progress and promote the profession... we must embrace the idea of CPD wholeheartedly" (p400). She says that in doing this the profession will move forward. Ng and White (2005) agree with other writers about radiography research. They say that radiography needs to establish a recognised research background in order to establish full professional recognition. The SCoR (2005) in their publication on research acknowledge this and state that "the policy of the SCoR is to encourage all radiographers to use research in their practice, thus securing for their patients the best evidence and knowledge-based care available" (p7).

Sim et al. (2003) highlight the importance of lifelong learning and found in their study that workplace culture was not always supportive of this.

Few DRs are involved in research; only 4.6% of DIDs surveyed had DRs involved in research (Price, 2008a). It can be seen that despite the SCoR plans and recommendations from the literature, practising DRs are still reluctant to engage in research and they feel that they do not necessarily have the time or see the relevance of research and CPD.

CPD is now linked to registration with the HPC so this may change as DRs will be audited. The HPC have selected 2.5% of radiographers to submit a CPD profile. Those selected for audit will be sent a letter informing them that they must complete a profile that demonstrates the activities they have undertaken during the past two years to meet the HPC's CPD standards (HPC, 2010). However, the results of this study concur with the findings of other writers that many DRs do not engage with research, evidence-based practice or CPD. There appears to be an 'anti-research' aspect to the culture which will have an effect on the future of the profession if this apathy continues. As has been mentioned before attitudes, beliefs and values perpetuate within a culture, and the anti-research attitude is one of these. It seems that lack of support from colleagues prevents DRs from becoming enthusiastic about research and learning, and instead they find it easier to conform to expected and acceptable behaviour which consists of ambivalence to research, CPD and learning.

This attitude may change over the next few years as more and more graduates join the profession and the fact that research is a part of their degree programme may increase their interest in research, evidence-based practice and further study. However, any change within a culture takes time.

8.3. Extended role and barriers.

DRs have experienced many changes to their practice and equipment over the past few years. As a profession DRs have a tendency to resist change. This theme overlaps with the relationship between DRs and radiologists theme in the 'relationships with colleagues' chapter (p157), as many of the aspects raised in the barriers to role extension link with radiologists.

Radiography is described by writers as an 'emerging' rather than 'established' profession. Much of the limitation in autonomy comes from dominance by the medical profession (Yielder and Davis, 2009). Lack of autonomy fosters a reduced confidence to take on role development into areas where medicine has a greater status, e.g. reporting, case load management, barium studies, prescribing. Because DRs have worked for such a long time under medical dominance within the hierarchy of the NHS they have become moulded and comply with these expectations (Yielder and Davis, 2009). Compliance is linked with submission and obedience; the DR becomes reluctant to challenge and question others, particularly medics (Yielder and Davis, 2009). A reluctance to question and challenge others can lead to low self-esteem, reduced job satisfaction and a lack of confidence and ultimately a reduced motivation for learning, a true downward spiral where the DR is more likely to fear new ideas and resist change. This was evident in some of the DRs.

Within the DID there was evidence of extended role and advanced practice amongst the DRs. Within A&E this was seen.

> *"The DRs comment on the images to provide information for the referrer and one DR carries out A&E image reporting."*
>
> ***Observation 14/8/08, A&E.***

This enhances the DR's knowledge of trauma and fractures and also gives value to their judgement.

Also, in MRI there was evidence of extended role and advanced practice.

> *"The DRs book the patient's appointments according to urgency and the examination required. SuptDR3 reports most of the MRI scans and works fairly autonomously. DRs cannulate their own patients."*
>
> ***Observation 2/10/08, MRI.***

Once again, this gives value to the DR's skills and knowledge, and it also increases the throughput within the MRI department as the DRs do not have to wait for a radiologist to cannulate their patients.

SenDR2 talked in her interview about how fortunate she felt that she was to work as an advanced practitioner in an area that she enjoys. This obviously gives her a great deal of job satisfaction.

> *"Skill mixing has increased, luckily for me... I was lucky enough to get a role extension into barium enemas and I think that has changed... when I started here there were only 2 people doing barium enemas and not much else but now obviously we're extending our role even further..."*
>
> ***Interview with SenDR2.***

So some of the DRs were positive about role extension and enjoyed this aspect of their role.

However, within the DID there did appear to be some reluctance on the part of the radiologists to further role extension. During my observations the DRs talked about some of these barriers.

> *"The DRs talk about extended role and the barriers that exist to progress."*
>
> ***Observation 12/8/08, Area C.***

The main barrier cited was the reluctance of radiologists to allow further role extension for DRs, particularly in CT.

"There are barriers to CT reporting by DRs from radiologists. There appears to be a power struggle for territory."

Observation 13/8/08, CT.

As previously discussed the radiologist to DR relationship has a history, but there have been changes. However, there is still some resistance amongst radiologists to change.

"I think there's a tension between the radiologists and the radiographer extending their role."

Interview with SenDR12.

The radiologists appeared keen to retain certain aspects of their work and were not happy to hand these over to DRs.

"The radiologists are still keen to keep their tight grip on some reporting, so there are certain areas in which role development is happening and some areas in which it isn't."

Interview with SuptDR4.

The whole issue of role extension and professional development has been ongoing in radiography since the instigation of the four-tier structure. There has been mixed response within the profession and within the departments with national variation in advanced practice roles. Price (2008a) in the 'Scope of Practice 2008' talks about the common barriers to extended role, these include lack of support from radiologists, funding, time to train, staffing, encouragement from management, service demands, shortage of radiologists, targets and pressures. Yielder and Davis (2009) say that the key issues that appear to characterise the culture of the radiography profession; low esteem, apathy and resistance to change will result in limited professional development of individuals and future development of the profession.

The DRs who have a negative attitude to CPD, research, evidence-based practice and role development tend to have a negative effect on those working with them, stamping out the enthusiasm of younger, more ambitious

staff in order to maintain the status quo. This attitude when experienced in a DID will have a negative effect on all of the DRs, as role modelling and the effect of the behaviour of others is crucial in the radiography profession.

8.4. Dealing with radiation.

DRs have to ensure that they comply with the IR(ME)R (2000) regulations (DH, 2007), within their practice. The use and application of these regulations were observed during the DRs' practice within the DID. It is the DR's responsibility to ensure that all X-ray requests are justified.

> *"All X-ray requests need to be justified and checked that they are valid."*
>
> ***Observation 11/8/08, Area C.***

The DRs should be reading the clinical information provided about the patient and making a decision about the necessity of the examination.

> *"There was a request card with little information and a poor indication for an X-ray, one of the DRs decided that this X-ray request was not justified."*
>
> ***Observation 11/8/08, Area C.***

In this case the DR decided that there was not enough information to proceed with the examination.

I also saw DRs discussing request cards with colleagues in order to obtain advice in the viewing area.

> *"The DRs discuss the validity of an X-ray request."*
>
> ***Observation 29/8/08, Area C.***

Junior staff would consult more senior staff if they were unsure.

> *"A junior DR asks a senior DR if an X-ray request is justified."*
>
> ***Observation 18/9/08, Area C.***

In the staff room the DRs frequently discussed events. On one occasion they were discussing how the new intake of doctors (which happens twice a year) had led to an increase in X-ray requests that were not justified. The DRs linked this to lack of experience, lack of confidence and fear of litigation.

> *"DR4 talks about new doctors requesting unnecessary X-ray examinations because they seem to be scared of missing something and of litigation."*
>
> ***Observation 29/8/08, Staff room.***

In their interviews the DRs say that this aspect of their role can lead to conflict and to other professionals misunderstanding the DRs' role and thinking that they are being difficult.

> *"It can be an issue with other members of staff around the hospital."*
>
> ***Interview with DR1.***

Here DR1 was talking about occasions when nursing staff had not understood why she needed more information about the patient. SenDR12 made the same point and said that this can cause conflict with other professionals.

> *"We're really strict about justifying our forms aren't we? And some other professionals, like nurses might think or will see us as obstructive, but that side of things is very important to radiographers."*
>
> ***Interview with SenDR12.***

SenDR7 was adamant that justification of an examination was really important as the patient would be receiving a radiation dose and so there had to be a benefit to the patient.

> *"You're irradiating them, so it's your responsibility."*
>
> ***Interview with SenDR7.***

DR1 expressed the conflict between the referrer (in this case the doctor) and the DR in terms of the necessity of an X-ray examination. She says that there is a lack of understanding from some of the doctors.

> *"There are doctors in the hospital who just cannot seem to understand that some X-ray requests are not justified and not necessary."*
>
> ***Interview with DR1.***

I saw this happen in A&E when a consultant was not happy with the DR for asking for further information about a patient. He tried to assert himself by using his position.

> *"The A&E consultant came into the X-ray viewing area and was rude to the DR when she asked him for some more clinical information in order to justify the X-ray request."*
>
> ***Observation 12/8/08, A&E.***

As well as other professionals not understanding the need to justify the examination the DRs also talk about the lack of understanding from other professionals about how examinations are carried out and the information that is needed by a DR before they can carry out an X-ray examination. Once again in the staff room the DRs used story telling to make this point about an incident.

> *"The DRs were discussing that a patient with dementia had been sent for facial bone X-rays and she could not sit up or keep still. The referring doctor could not understand why the DR could not carry out the examination."*
>
> ***Observation 29/7/08, Staff room.***

So here the DRs are expressing their annoyance that the referring doctor was not aware of the patient positioning requirements for the facial bone X-ray examination which require the patient to sit up straight and remain still.

DR1 also refers to the fact that DRs should check the pregnancy status of their patients before the examination and how other staff, in this case theatre staff do not appear to understand the importance of this.

> *"The whole pregnancy thing can be a nightmare with patients in theatre, patients are not asked about their pregnancy status."*
>
> ***Interview with DR1.***

Interestingly the manager had a different perspective and saw the DRs' knowledge of radiation as something that DRs can use to exert power over other professionals on occasion.

> *"The magic spell that radiographers have that nobody else has is ionising radiation... Radiographers do use that to say well I am a professional that is slightly set apart from you because I have the ability to control this mystery that is ionising radiation... yes sometimes radiographers use that and it gives them a bit of power."*
>
> ***Interview with Manager.***

Ionising radiation regulations can be a source of misunderstanding between professionals. This can cause difficulties in communication between DRs and other health care professionals. Stanbridge et al. (2007) say that doctors and nurses should be aware of the risks and benefits of imaging procedures as they are key sources of information for patients. Higgins and Hogg (2004) say that a lack of knowledge amongst health care professionals about imaging examinations means that they don't feel confident to talk to patients about the risks and benefits. Picano (2004) in his review article agrees with this, suggesting that doctors and patients should be more aware of the long term risks of radiological investigations. The safety of the patient in regard to justification of the examination and weighing up the risks and benefits should be the responsibility of the DR and the referring clinician (Majeed et al., 2006). Leathard (2003) postulates that this lack of knowledge and awareness may be due to a misunderstanding of the roles of other professionals. He says that the barriers and cultures within the NHS mean that there can be a lack of clarity about the responsibility of each professional, with each person working in a silo and believing that the other is taking responsibility or not being aware of the other person's role (Leathard, 2003). It is also very difficult for professionals to articulate exactly what they do (Allen, 2004b).

DRs and radiologists could play a key role in educating and informing other professionals through interprofessional working. In order to do this the DR needs to gain the respect of their interprofessional colleagues and then actively advise, educate and challenge them.

It seems from this study that the DRs were quick to criticise the other professionals, but not so quick to offer solutions. Perhaps the DRs enjoyed the position of power that a lack of knowledge from other professionals gave them as the manager postulated. Maybe the DRs are happy that they have this area of practice that they have control over. It seemed, after listening to discussions in the staff room that the DRs enjoyed the arguments on occasion.

However, DRs need to be careful about how they handle misunderstandings and not use their knowledge of ionising radiation as a means to elevate their profession and cause conflict.

8.5. Summary.

In summary, there are some aspects of the work of the DR that are very specific to their professional role. Each of these aspects has an effect on the way in which DRs work and interact, and ultimately the culture within the DID.

This chapter uncovered current issues related to objective one, and explores some of the issues around role, related to learning to become a DR (objective two).

9. Conclusions.

The conclusions of the study have been written in relation to the original study objectives.

9.1. To describe the culture in a DID and highlight the current cultural issues that face DRs.

The DID is a task-focussed, target-driven environment where throughput of patients is important. It is time-pressured and efficiency is paramount. This working environment influences the way in which DRs behave and interact with their patients and colleagues. DRs behave in a very task-focussed manner which to some observers may appear to be uncaring. They like to take control of the patient interaction and concentrate on the task of producing diagnostic images.

DRs appear ambivalent to research, CPD and evidence-based-practice. This has made it difficult for the profession to move forward and embrace the four-tier structure. There are many barriers to extended role and the relationship between the DRs and the radiologists is a contributing factor. In the past the diagnostic radiography profession has been dominated by the medical profession and some of this remains within the DID. The radiologists have a certain amount of control over opportunities for extended role within their own DID.

New DRs or students come into the culture with new ideas and suggestions and these tend to be prevented from being implemented as they do not conform to ideas that are acceptable. This therefore maintains the cultural status quo.

The DID is a closed community which makes interprofessional working and liaison between professions difficult. The use of ionising radiation by DRs as part of their role and the confusion this can cause to other professionals can also put a strain on interprofessional collaboration. DRs can use their knowledge of ionising radiation as power.

DRs interact with equipment and computers and this is becoming an even more important part of the job. DRs are one of the only professional groups that have a visible product (an image) as a result of their interaction with the patient. This visible product is there for all time as a record of the interaction between the DR and the patient. DRs are wary of this and can be very defensive of the images they produce. This can also result in DRs putting more emphasis on the image production than on the care of the patient.

9.2. To explore how people learn to become a DR and how they become professionally socialised.

There is a system of work within the DID, and a way things are done. There is expected and acceptable behaviour. Whenever a DR behaves 'differently' other staff members comment on this and find this difficult to deal with. DRs tend to conform to the acceptable pattern of behaviour as this contributes to the smooth running of the service within the DID.

This expected and acceptable behaviour is passed on through role modelling and by DRs to students as they learn to become DRs and copy the behaviour of others. DRs share their knowledge with one another and spend a lot of the time informally teaching their colleagues. Discussion about the job and story telling are integral to the culture within the DID.

DRs learn how to behave in different areas of the DID by observing and copying the behaviour of others. Student DRs talk about emulating others and how they observe and copy what they perceive to be good behaviour and how they decide not to copy what they deem to be less acceptable behaviour.

9.3. To look at how DRs communicate and interact within the DID

DRs communicate with patients in a task-focussed manner. They make a rapid assessment of their patients, categorise them and depersonalise them in order to deal with them. In categorising their patients DRs can make decisions about how the patient might behave and how much time might be needed for the examination. DRs use their previous experiences and expertise to make decisions and judgments about their patients.

DRs do not like to become involved with patients on an emotional level; they exercise professional detachment and do this for self-preservation. DRs try to avoid a display of emotion and instead try to avoid emotional engagement. It appears that it is not acceptable for a DR to become upset in front of patients or relatives. DRs learn their patient care from one another, and this is very much like an apprenticeship model which results in little change in practice.

DRs, like many professionals working with the public use dark humour as a coping strategy. Dark humour is used to diffuse a potentially upsetting situation and also to check that a colleague is okay. It is rare to see DRs discussing an upsetting situation without the use of humour.

The team working between DRs in the DID can appear choreographed as DRs become used to working together and taking on different roles within the team. The DR quickly fits into this team approach to tackling the workload. Discussion with colleagues is an important part of the culture in the DID, and DRs often discuss their work with one another as they are carrying it out.

DRs exhibit different behaviours in different parts of the DID; there are front areas where they interact with patients and the public, taking on a professional appearance, and then there are back areas which are much more informal, where DRs behave in a more relaxed manner.

9.4. What does this tell us about the culture in the DID?

Symbolic interactionism can be used to explain how DRs learn to behave and become socialised into the culture of the DID. This takes place as each DR comes to understand the behaviour and intention of the acts of others around them, and then guides their own behaviours to fit in to this culture (Manis and Meltzer, 1978). Socialisation into the workplace, often termed occupational socialisation involves the internalising of norms, beliefs and values in order to 'become' a DR. This is done through situated learning, copying and learning the acceptable behaviours, observing others and interacting with others (Atkinson and Housley, 2003). The DR produces a social performance which is based on a cultural script which has been learnt from others (Madison, 2005).

The culture in the DID is based on learnt behaviour. The culture is governed by the DRs and they have control over the culture. The DRs decide on the

acceptable behaviours, norms, beliefs and values and how things should be done.

Like many work based cultures the culture within a DID is fixed and rigid. It does not change easily. Any changes take time and are not always well received. The old way of working, the way that things have always been done perpetuates through learnt behaviour and through conformity to expected behaviours. Pediani and Walsh (2000) warn that any change in practice takes time and needs to be simple, understandable and made relevant to those involved. The implications of this are that any change or development takes time and meets resistance.

9.5. Summary

Some of these findings do not paint a good picture of the profession. As a researcher I am interested in and open to the findings, and I feel that it is important to articulate them to my readers. However, as a practitioner and as an educator in diagnostic radiography I find these results to be uncomfortable.

Part of the process for me is becoming comfortable with sticking my head above the parapet and saying 'this is what I think', and this is what I have found out about the culture in my own profession of diagnostic radiography.

10. Recommendations.

- The results of this study need to be shared with:
    - DRs
    - Prospective DRs
    - Other professional groups in order to increase understanding of the role of the DR and to improve interprofessional understanding and working
- DRs need support with issues around patient care and dealing with emotions so that they do not shy away from becoming emotionally involved with their patients. I believe that this is an area that is lacking in the professional education and long-term development of DRs. DRs need to be trained in how to deal with their emotional reactions and be provided with the support and opportunities to discuss how they feel after dealing with a traumatic incident that may have affected them
- Interprofessional relationships need to be improved. DRs need to put themselves forward and become involved in educating their colleagues about their role and about ionising radiation. DRs also need to be more open to learning about and from other professionals, so that they can understand everyone else's role within the multidisciplinary team
- Further studies are needed about:
    - How DRs learn their patient care skills
    - Emotional intelligence in DRs
    - Coping strategies used by DRs
    - How the visible product of a radiographic image is perceived by DRs and other professionals as a record of the professional to patient interaction

- Professional socialisation within diagnostic radiography
- Research in diagnostic radiography about patterns of behaviour, attitudes and beliefs

These ideas stem from some of the knowledge touched upon in this study which I believe needs further exploration

- The promotion of the benefits to the profession of CPD, research and evidence-based practice needs to be more clearly articulated in order for the profession to grow and develop

11. Reflection on the Professional Doctorate

Now that I have completed my DProf I want to look back over the past five years and reflect on my journey.

I can honestly say that I have enjoyed the experience and although it has been a challenge I feel that I have grown and developed as a person and as a professional over the five years.

11.1. Personal development.

For me it has been as much about the process as the product. It has been great to see the finished product, a dissertation that I have written, but for me the journey to that final point has been just as important. I have a learnt a lot about myself and the way in which I work. I was asked to write some snippets for my course leader's book about achieving a DProf (Lee, 2009), and one of the quotes that I cited to sum up how I was feeling was from Chesney (2000) in her reflective piece about understanding her place in the research where she says "clearing the view to myself has served to help me understand others" (p68). This for me summarises what the DProf has been for me, an exploration of myself which has lead me on to an exploration of my profession. I was able to look myself, my colleagues and my profession from a different perspective and start to explore some of the reasons behind their culture and behaviour. I have been able to explore tacit knowledge as well as overt knowledge and it has been interesting to look at why DRs exhibit certain behaviours and the reasons behind practice.

The process for me has also meant a change in the way that I view the world around me. Over the past five years I have become a more reflective and analytical person. I am much more measured in my responses to issues, questions and discussion. I think I am more able to see others' points of view. I have developed my critical thinking skills, and feel better equipped to read and listen to the work of others and question their approach. I think this comes from the observation and interpretation that has been part of the research process, and also from reading other peoples' work and writing my own work.

I know that I spend a lot more time thinking about the words I will use when writing and speaking because of the DProf and I also tend to analyse the words that others use when communicating with me. I am much more critical and spend more time trying to convey my exact meaning. I guess that this stems from writing a dissertation where every word counts and is significant and I feel under pressure to get it right.

One of the highlights for me was to have some of my DProf work published (Strudwick, 2008; Strudwick, 2009; Strudwick, 2010) and having the opportunity to present my research at conferences. I have enjoyed the experience of sharing my work with others and feeling that I have something to contribute to the debate.

11.2. Me as a researcher.

I have enjoyed learning about research and developing some expertise in my chosen area. I have been able to utilise this knowledge in both teaching and

supervising undergraduate and postgraduate students. I see the DProf as a stepping stone in terms of providing me with the research skills and writing skills to continue with research and to carve out a niche for myself.

One of the highlights of the DProf was actually conducting the research and collecting the data. At times I had to 'think on my feet' and problem solve. This is an area I thrive on in both my personal and professional life and I relish the challenge. The inductive nature of my research maintained my interest in the topic and I feel passionate about my research and about my findings. There was a real sense of achievement when I completed the data collection, for me this was a real milestone in the research process.

I do not think that I was aware at the start just how difficult it would be to write my methodology section and to justify the reasons for the choices that I made. I was a little naive in thinking that any reader should be able to understand what I had done and why I had done it. There were many issues that I had to explore which I had not really considered such as the ethical issues. If I were to start again I would take longer to prepare before starting the observation as I felt at times that I was 'fire fighting' when an issue came along, as I had not thought about how best to deal with it beforehand. I would also pilot my interviews with a colleague as I had no real idea of how long they would last and I think that my interview technique improved as I went along. However, as a novice researcher these problems are bound to occur and I learnt from them.

11.3. Me as a practitioner.

During the research I was able to study my own profession in greater depth. It was interesting to look into the work place culture in radiography and to reinforce and provide evidence for some of the things I had thought about the profession. I have been able to explore further the reasons for the way in which DRs work and behave. I am also interested in taking my ideas forward to carry out further research into my profession.

However, some of the results of my research are not very flattering for the radiography profession. For me, this was quite difficult to come to terms with. I found it difficult to observe some of the negativity that is evident within the profession. It was sad to see that some DRs do not show interest in CPD, evidence-based practice and research. There seems to be apathy towards moving the profession forward or wanting to see progression within radiography. I was also disappointed to observe the way in which DRs communicate with colleagues from other professions. There appeared to be a lack of understanding and awareness of one another's roles and a lack of willingness to find out what other professions do. DRs need to ensure that other professionals understand their role and that they understand the role of other professionals in order to promote interprofessional team working.

I also observed some poor communication between DRs and patients which was difficult to deal with. I wanted to intervene, but as discussed earlier in the methodology section, this was not the reason for my presence, so I did not intervene.

I do, however feel that it is important to uncover these issues. I hope that in the dissemination of my findings I can make a positive contribution to the future of the radiography profession and increase awareness amongst DRs. The findings from my research will assist DRs, prospective DRs and other professionals in understanding the workplace culture within a DID and amongst DRs.

11.4. Me as an educator.

As an educator I was particularly interested in the way in which students learn from others through role modelling. It was evident from this study that a lot of the behaviour I saw was learnt from others and that students learnt to 'fit in'. I was interested to see how DRs taught one another informally through sharing and discussing their practice with one another.

There were several occasions during the research that I wanted to intervene and teach the DRs or challenge them to reflect on something that had happened. This made me think that as educators we do need to get out into practice and see what the educational needs are of our practitioner colleagues, so that we can assist them in their own CPD.

11.5. Conclusion.

The DProf has been a long, sometimes painful journey but it has been worthwhile. I have learnt so much from the experience and the process. The DProf is the springboard for the rest of my career. It has been a journey of personal development which I am certain will enhance my future professional practice.

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Appendix 1 – Ethical Approval Letters.

NHS Trust

R&D Office

21/05/2008

Mrs Ruth M Strudwick

Dear Mrs Strudwick

An ethnographic study of the culture in a diagnostic imaging department with the primary focus on diagnostic radiographers. (DID)

R&D Ref: 2008ED001 **REC Ref:** 08/H0310/36

I am writing to confirm that the above project has been reviewed by Hospital NHS Trust Research Operational Committee and has Trust approval to proceed. Documents reviewed were those listed below:

– REC Application	AB/127785/1	
– Protocol	*V 2*	*25/04/08*
– Advertisment	V 1	25/04/08
– Participant Information Sheet	*V 2*	*25/04/08*
– Participant Consent Form	*V 2*	*25/04/08*

You are reminded that the study must follow the approved protocol and that any proposed amendments must be submitted for review by both the Trust and the Research Ethics Committee. Submission for both reviews should be made via the Hospital R&D Office.

Approval is subject to compliance with the attached standard terms and conditions for research. You are required to comply in a timely manner with the project monitoring and auditing requirements of the Trust and may be asked to provide non-confidential information on the outputs and impact of the research. Please ensure that any adverse incidents are reported as per the attached flowchart.

We require that you sign, date and return the duplicate copy of this letter to the Hospital R&D Office to confirm your compliance with the Trust Policy and Procedures on Research Governance.

Please do not hesitate to contact the R&D Office should you require any further information.

Yours sincerely

Research & Development Officer

NHS

National Research Ethics Service
Research Ethics Committee

07 May 2008

Mrs Ruth M Strudwick

Dear Mrs Strudwick

Full title of study:	**An ethnographic study of the culture in a diagnostic imaging department, with the primary focus on diagnostic radiographers**
REC reference number:	**08/H0310/36**

Thank you for your letter of 28 April 2008, responding to the Committee's request for further information on the above research and submitting revised documentation, subject to the conditions specified below.

The Vice Chair together with has considered the further information on behalf of the Committee.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites

The favourable opinion applies to the research sites listed on the attached form.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission at NHS sites ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Application: Parts A & B: Sections 1 & 8.	5.5	04 March 2008
Investigator CV		06 March 2008
Protocol	2.0	25 April 2008
Covering Letter		06 March 2008
Letter from Sponsor: , Contracts Office, University of Salford.		No date
Compensation Arrangements: UMAL, University of Salford	UM047/00	01 August 2007
Advertisement	1	25 April 2008
Participant Information Sheet	2	25 April 2008
Participant Consent Form	2	25 April 2008
Response to Request for Further Information		28 April 2008
Summary CV for Supervisor: Professor Stuart Mackay		18 February 2008
Honorary Contract		06 March 2008
CV for Dr S Hicks		19 February 2008
Structured observation chart	1	24 February 2008

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

08/H0310/36	Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely

Vice Chair

Enclosures: "After ethical review – guidance for researchers" [*SL- AR2 for other studies]*
Site approval form: Issue 1

Copy to: *Sponsor:* *University of Salford*
R&D office for *Hospital.*

Appendix 2 – Participant Information Sheet and Consent Form

Participant Information Sheet

Study Title

An ethnographic study of the culture in a Diagnostic Imaging Department (DID)

Invitation paragraph

I am currently studying for my Professional Doctorate (DProf) and I would like to invite you to take part in the research that I am doing as a part of this. Before you decide to take part you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or would like more information. Take time to decide whether or not to take part.

The research involves studying the culture in a DID. In order to do this I will be carrying out observation within the department and interviews with members of staff.

What is the purpose of the study?

The main purpose for me is to complete the research for my DProf. I am also interested in contributing to research in radiography and being able to describe more clearly what it is radiographers do and how they do it. The results of this study may prove beneficial for prospective diagnostic radiographers (DRs) and other health and social care professionals in establishing the role of the DR and how they work and interact.

Why have I been invited?
I have chosen you to be involved as you are a member of staff within the DID. I would like all staff in the DID to be involved in this study as part of the observations within the department. The study will be focussed on DRs in the DID, but I would like to observe all staff.

I will also be selecting staff to be interviewed later on in the study. I will select staff from different professional groups for this part of the research and this may also include you.

Do I have to take part?
You do not have to take part in the study, it is up to you to decide. I will describe and go through the information sheet, which I will also give to you. I will then ask you to sign a consent form to show that you have agreed to take part. You are free to withdraw from the study at any time, without giving a reason. You can withdraw by telling me or one of the senior DRs in the department.

What will happen to me if I take part?
This research will take approximately one year with between three and six months observation in the department which I will undertake, followed by

interviews over the next few months. I will also be looking at documents that are used in the department.

The observation will be over a series of one day visits, once or twice per week. I will be observing practice within the department and this may require me spending some time with you whilst you go about your normal duties during the day.

The interviews will last approximately one hour and will be recorded on audiotape and then transcribed verbatim.

All participants will remain anonymous, although it may be helpful to name the professional group which participants belong to. However, no names will be used in the study.

Expenses and payments?
I will not be providing any expenses or payment. Time spent being observed or interviewed will be part of your work time as negotiated with the manager of the DID.

What will I have to do?
When being observed just carry out your work duties as normal and be prepared to answer any questions that I might have.

Answer questions in an honest way during the interview.

What are the possible disadvantages and risks of taking part?
There are no real disadvantages of taking part in the study. All of the data collected will remain confidential.

If you require support during or after your interview then you can access support at the Trust's Occupational Health department.

What are the possible benefits of taking part?
I cannot promise the study will help you but the information that I gain from the study will help to increase understanding about the role of the DR and the working culture within the DID.

Observation of mal-practice.
Any instances of mal-practice will be reported to the departmental manager in accordance with Trust policy.

What if there is a problem?
If you have a concern about any aspect of this study, you should speak me, (the researcher) I will do my best to answer your question.

You can also leave me a message in the "comments book" which will be left in the staff room.

If you remain unhappy and wish to complain formally you can do this by contacting your line manager in the first instance.
If you are still unhappy you can contact my research supervisors.

(Stuart Mackay, s.mackay@salford.ac.uk and Steve Hicks, s.hicks@salford.ac.uk)

Will my taking part in the study be kept confidential?
All information that is collected about you will be kept confidential, and any information about you that leaves the hospital will have your name and details removed so that you cannot be recognised. Your confidentiality will be safeguarded during and after the study. My procedures for handling, processing, storage and destruction of their data match the Data Protection Act 1998.

Observation data will be collected through my notes and through completion of observation charts. Interview data will be recorded on audiotape and transcribed verbatim. Document analysis will be recorded in note form.

Individual participant research data will be anonymous and given a research code, known only to the researcher

The data from the research will be stored safely and securely. Electronic information will be stored on the researcher's personal computer which is password protected. Written data and tapes will be secured in a locked filing cabinet. All data will be retained by the researcher for 3 years.

If the data is to be used for future studies further approval will be sought from the ethics committee.

Involvement of the General Practitioner/Family Doctor (GP)
There are no circumstances that will affect your health and therefore your GP will not be involved.

What will happen if I don't carry on with the study?
If you withdraw from the study all of the information and data collected from you, to date, will be destroyed and will not be included in the study.

What will happen to the results of the research study?
The results of the study will form the basis of my DProf thesis and I also hope to be able to publish the results. I hope to make the results of the study available to all staff in the DID after the completion of the research. You will not be identified in any report/publication.

Who is organising or sponsoring the research?
The University of Salford.

Further information and contact details:
General information about research governance – www.nres.org.uk

Researcher's contact details:

Mrs Ruth Strudwick, Radiography Lecturer.

Work: 01473 296693
Email: r.strudwick@ucs.ac.uk

Research Participant Consent Form

Title of Project: **An ethnographic study of the culture in a Diagnostic Imaging Department (DID)**

Name of Researcher: Ruth Strudwick

(please circle your answer and write your initials in the box – yes or no)

➢ I confirm that I have read and understood the information sheet for the above study and what my contribution will be.	**Yes**	**No**	
➢ I have been given the opportunity to ask questions (face to face, via telephone and e-mail)	**Yes**	**No**	
➢ I agree to take part in the interview	**Yes**	**No**	**NA**
➢ I agree to the interview being recorded	**Yes**	**No**	**NA**
➢ I agree to being observed within the department	**Yes**	**No**	**NA**
➢ I am happy that any incident of mal-practice will be reported to the departmental manager in accordance with Trust policy as indicated in the participant information sheet	**Yes**	**No**	
➢ I understand that my participation is voluntary and that I can withdraw from the research at any time **without giving any reason**	**Yes**	**No**	
➢ **I agree to take part in the above study**	**Yes**	**No**	

Name of participant .....

Signature .....

Date .....

Name of researcher taking consent Mrs Ruth Strudwick

Researchers e-mail address r.strudwick@ucs.ac.uk

Appendix 3 – Example of structured observation.

DR2 – answered phone. Collected patients from main waiting room. Spoke to students. X-rayed a patient (knee X-ray). Tidied up X-ray room. Post processed images and patient on computer. Sent patient away. Checked X-ray form with student. Supervised student doing an X-ray. Looked at forms for next few patients. Showed student how to move equipment. Taught student how to do a lateral hip projection. X-rayed next patient (chest). Interaction with patient – checked DOB and explained procedure. Moved X-ray equipment. Explained to patient how to get into position. Checked that patient knew where to go next. Checked student's images. Checked form with student and then with a senior DR. looked at own image. Sent patient away. Post processed patient on computer. Went to tea break.

SenDR14 – supervised student taking X-ray. Processed student's image. Discussed with students how she feels when a room is out and the patients see lots of staff 'hanging around'. Helped student with another patient. Answered a question from a patient and helped the patient to look for his glasses. Answered the phone. Checked student's images. Recorded doses on patient's X-ray form. Collected patients from main waiting room. Set up room for next patient. Called patient into X-ray room, checked patient details and explained procedure. Dexterity in positioning patient whilst talking to them about their X-ray. Asked a student to process her images. Listening to patient talking whilst positioning the equipment. Discussed the patient with the student. Sent patient out into waiting room. Processed images and post processed patient on computer. Sent patient away. Went for tea break.

DR2 – advice given to student about how to position a patient. Fetched another patient from waiting room. X-rayed patient. Answered questions from another patient and sent him away to fracture clinic. Checked patient's details and explained procedure. Talked patient through breathing instructions. Asked student to process image. Discussed patient with the student. Asked patient to wait in the room whilst she checked images. Checked images and sent patient away. Spoke to students about the patient and how she had put her gown on back-to-front. Shared anecdotes with students about other occasions when patients have been in a muddle with their gowns. Signed student's logbooks. Post-pocessed patient on the computer. Showed a student how to do a thumb X-ray. Gave directions to a patient that was lost.

Appendix 4 – Example of observational field notes.

29/8/08 AM – Area C (DR4, DR6, DR10, SenDR1 & SenDR8)

DRs wear a uniform and an ID badge, carry anatomical markers and a pen, some wear a badge from their training school/hospital/centre, wear sensible black shoes
Moving and handling, and taking care of the patient
Supervision of students
Discussion about imaging request in the viewing area
Organisation of workload
Discussion about images produced in viewing area
Organisation of tea and lunch breaks
Team working when dealing with in-patients
Processing on the computer
Banter with patients, making easy conversation to put them at ease
Discussing an X-ray request
One DR and student had mixed up cassettes which resulted in two images on one cassette and a patient needing to be re-imaged
Blame culture and admitting to mistakes was discussed.
DR4 brought up the machine fault from last week as she still has a feeling of guilt even though it was not her fault, *why do we beat ourselves up?*
Telephone ringing a lot this morning, interrupts the work flow
Filling in of incident forms – blame culture. *Are DRs worried about their practice or are they worried about the consequences of filling out the form?*
Discussion about validity of an X-ray request, discussed with a radiologist
The student was integrated into the team
Ways of recording information – rota, whiteboard, recording exposures on request card and recording information on the computer
Use of the expression "shopping list" for a patient who required multiple X-rays
Time spend on the computer and sorting out queries

29/8/08 tea break – staff room

DR4 talked about new Drs requesting unnecessary X-rays because they seemed scared of missing something and litigation
A patient over the w/e with dementia had been sent for facial bone X-rays and she couldn't sit up or keep still.
Lack of understanding of what DRs do and how we carry out the imaging of patients

I was asked to give an opinion on an image
DRs often discuss their images with one another in the viewing area
There is a system for knowing which patient is next
Student verifies an X-ray request with a DR in the viewing area
A Dr comes to speak to a DR about an X-ray request
At one point the senior DR(8) is in demand and a queue of three people are waiting to speak to her
There is dim lighting in the X-ray rooms and viewing area
The phone rings and interrupts the work flow
Theatre demand a DR, but haven't given enough warning that they need a DR
Waiting around for an X-ray room to be free
There is a pregnancy status procedure which must be adhered to

DRs discuss how they will manage the work load as there is now a one hour wait
One DR has to phone fracture clinic to ask for further information
DRs discuss issues and queries in the viewing area
Student waits for DR to check images
Management of breaks and what time you take your break at
Discussion about the rota and on-call cover in viewing area
I was able to pass on messages
DRs multi-tasking
Procedure for dealing with a patient with MRSA, there is a "clean" and "dirty" person
Patients not listening to instructions given by staff
Porters hassling DRs about patients who are waiting to be X-rayed
DRs speak to pts using short interactions, but need to give clear instructions
Drs don't always understand how images are taken
Writing down radiation dose on request card

29/8/08 lunchtime – staff room

Talking about on-call experiences
Discussing about how busy the morning had been

29/8/08 PM – CT (SuptDR2, SenDR10, SuptDR1 and DR10)

System of where pts forms are put
Both scanners working to reduce waiting lists
Phone rings a lot
Talking about the size of a patient who only just fits inside the scanner, a few derogatory comments were made
Team work when giving contrast injections
One patient had been mis-informed by another health care professional about their CT scan
Lots of messages and demands on the supt DR(2)
Multi-tasking
More discussion about out of hours and on call cover
Lots of coming and going from the control room, a hive of activity
DR/radiologist relationship – informal and formal balance, interesting dynamic
Frustration of observing and not doing
Able to pass on messages

3/9/08 AM – Room 3 – Ba enema list (SenDR2 and IA1)

Team working
Highly skilled communication with patient to explain procedure
The dynamic between DRs and imaging assistants (IAs) is very different from dynamic between DRs and radiologists
Use of touch
Making conversation with the patient
Use of equipment as a highly skilled operator
Use of language – different with patients and colleagues
Everything is in its place in the room
Lists of instructions on display

Noise of fluoroscopy equipment
Patient care and reassurance
Set "patter" with patients
Feeling of being in the way and not able to help or participate in the examination
Tiring, difficult to keep alert

Tea break
Discussion about patients and on-call situations
I am becoming part of the team and am now much more involved in conversations with staff in the staff room during breaks

Use of equipment and artefacts to do the job
Use of a sequence/system during a procedure
Non-verbal signals
Staff members observe one another and the patient to work out how the examination is going and what is going to happen next.
Working in a team, some people are able to adapt to take on a different role and others will just do one role.
Some staff members will always defer to the most senior person *(sometimes me!)*
A lot of the shared language is unspoken, NVC, facial expressions, body language
Shared decision-making
Recording of information is done in a certain way

Lunch break – staff room

DRs have two tea breaks (one AM and one PM) for 20 mins, and one hour for lunch. Most DRs spend this time in the staff room with other DRs
Discussion about bodily fluid and nasty experiences
On-call cover and swaps

Appendix 5 – Interview schedule.

DProf interview questions

Start with briefing to include:
Title and main aim of the study. Title: An ethnographic study of the culture in a Diagnostic Imaging department (DID), Aim: To explore the culture in a DID with the primary focus on DRs. Explain that the interview is being recorded and will be transcribed verbatim. Data will be anonymised. The interview will last approximately one hour. I may have to re-focus during the interview if answers go off on a tangent. Ask if there are any questions.

1. Can you start by telling me your job title and what your role is within the DID?

2. Can you describe the working environment in the DID?

3. What changes have you seen in the DID and what has lead to these changes?

4. What sort of relationship do you think DRs have with patients and how do they interact with them?

5. How do you think DRs communicate with their colleagues?

6. How did you learn to be a DR?

7. From my observations I noticed that DRs appear to be very concerned about keeping patients waiting, why do you think this is?

8. Whilst observing I also noticed that DRs use a lot of 'dark humour' and joke a lot about patients. Have you noticed this and why do you think this is?

9. I have also noticed that the behaviour of staff members is influenced by the area of the DID, for example in the staff room anything goes, the VA is a social area, and the waiting room is very formal. Have you noticed this and would you like to comment?

10. Do you think there is a radiography culture?

11. And finally, can you tell me how long you have been qualified and how long you have been working in this DID?

Thank you

Appendix 6 – Data matrix for 'involvement with patients' key theme.

Involvement with patients

Location of evidence	Quotes/evidence
Observation 12/8/08 Room 3	The patient that makes you think/touches you Because the patient had had a stroke he was unable to express his feelings. One of the members of staff had experienced something similar with one of their relatives and found this particularly upsetting. It would be fair to say that this particular patient got to all of those present, including myself.
Observation 18/9/08 A&E	Discussion with SuptDR2 about the 'patients that get to you', she had been in CT, and had just scanned a 39 year old woman with a caecal primary tumour and liver metastases. She talked about emotional involvement with patients and the fact that sometimes the patient just 'gets to you'
Observation 2/10/08 MRI	It can be a challenge to go back to the patient after an examination knowing that something is wrong and not alarming the patient. The DR had to go back into the scanning room to assist a patient off of the table; the DRs had observed that the patient had a brain tumour and that it was quite serious. When the DR returned to the scanning room she commented on how hard this was to do as she knew something was wrong.
Observation 2/10/08 MRI	Most patients coming to MRI have had several investigations beforehand, and this may be the ultimate diagnostic examination, therefore patients can be anxious. SuptDR3 talks about how certain things can invoke emotions in patients, e.g. music for cancer patients. DRs need to respond to patient's emotions and also things can evoke emotions in staff, e.g. a patient similar to a relative or a reminder of a situation you have faced.
Observation 17/10/08 Area C	DRs talk about a patient who has been in hospital for several weeks and has had many X-rays, he is a real character but has taken a turn for the worse, DR4 went to X-ray him this morning and the ward staff had called in his relatives. The staff on the ward were upset and the DRs were also concerned for him, they had become attached to the patient.
Observation 23/10/08 MRI	I discussed with SuptDR3 about telling patients bad news. DRs don't normally tell patients the results of their scan even when they know that something is wrong. *Do patients realise? Can they 'see it in our eyes?'* It is difficult not to give information away in the way that we act with the patient.
Observation 11/11/08 CT	Nervous patient – needed reassurance from the staff and some gentle persuasion to go through with the scan. DRs demonstrated empathy and good pt care and communication skills.
Interview with DR1	I prefer to just kind of one in one out really because I know that if I kind of got involved then I'd find that really difficult especially like sort of if anything happened to them yeah cause I think it's it's I mean it's never nice to see patients sort of like in pain it just keeps it sort of it is it is I think to an extent trying to lighten you know the kind of to keep it light rather than well you try not to get involved

	because you get if you let yourself get drawn into like that situation you then become involved and then you get upset and you start thinking like about your own kind of mortality and things like that and it's not a good like train of thought really especially like cause you could do that every day you know if you let yourself get involved with every patient who came through the door yeah I think sometimes it's just to keep it light and just to keep yourselves detached from what's going on cause cause we don't wanna get like I mean I personally would rather not get involved in that kind of thing unless obviously unless I was right there and I had to but sort of standing back and I'd rather not sort of get involved because it just becomes you then become emotional about it and then you're umm not able to do your job properly are you? we are here to do a job and that's what the patient expects of us. I still think you can have a nice rapport with the patient it's just it doesn't we don't have the kind of like radiotherapy radiographers have the time to build up a rapport and a relationship with patients whereas we don't have that.
Interview with DR4	well you can't cry you can't well you can't show any emotion so the only way you can show it is by joking about it and turning it into something light hearted so I think it is well it probably sounds really callous but it is just a coping mechanism isn't it
Interview with IA4	it is you know how you get through it and otherwise you know you'd just get so depressed and so stressed you well you wouldn't cope you have to you know not umm take it into heart too much I know a lot perhaps you do maybe later on but it's good that you can you know well even if something starts of as a joke it brings it to the fore and you can you can then discuss it you know you need to sort of thing there's no point in umm trying to hide things up and pretend it didn't happen. If you take it on board it's not healthy no no.
Interview with Manager	but umm you're actually dealing with things that are well if they happen to you you would be the stuff of your worst nightmares but because you're in a front line hospital you've got people coming well if you've just had a severe road traffic accident or have got the worst forms of cancer, the things that you absolutely dread and umm it's not actually you know even as I'm sitting here talking to you umm about it on that level well it almost feels uncomfortable but you'd normally cope with it by saying or by treating it a little bit more lightly
Interview with Manager	we don't normally want want to have that kind of in depth umm discussion about umm life and death matters
Interview with SenDR2	I think it's like a detachment you know it's a way of coping with what we've just seen what we've just done um because otherwise you'd go mad I know I would occasionally obviously it gets to you and especially I'll go home and think about it have a cry in certain situations that and a lot of it you can relate to your own life as well yeah if there's a patient that's similar to one of your relatives yeah and it suddenly hits you but I think the majority of the time you know it's a way of coping

Interview with SenDR2	we do see some awful things sometimes don't we
Interview with SenDR7	black humour um yes I think that does go on definitely yeah it does I think it's the way that that we deal with it because I think if we took everything to heart um I think that seriousness that you know um we would never cope you'd I think you'd see a lot of ill people sort of through it I think that's the way they deal with it because we do see some very horrible pretty horrendous things and you know then you can see some of the radiographers are shaken up they are definitely shaken up over it and the only way to probably deal with it is you've probably made a joke about something you know and you know they've sort of used it to see the smile come back
Interview with Stud2	we are not getting attached or looking after them on a long term
Interview with Stud2	things that happen to patients that are unfortunate is not very nice and if it did happen to to to me or you or whatever then obviously we'd take it very seriously I think the only reason that we can so easily joke about it and this is gonna sound really but I'm just gonna be honest is that we're detached from that person we don't know that person I mean just this week I've had a few in MRI I've had a few cases there which are enough to make you cry you know that awful I mean we haven't joked about them but I think that you've got to try and remain detached cause if you get involved you'd never get through the day
Interview with SuptDR4	and also I think in CT it's a way um I think radiographers kind of detach themselves a little bit from patients as a sort of coping mechanism cause obviously we see a lot of very poorly patients um you know and and it can be you've often done the scan and you know you've seen something on there that patient has no awareness of whatsoever yet um so as a way of sort of coping with that you kind of detach yourself a little bit from them so that you don't get too involved with them
Interview with SuptDR4	it's a detachment thing as well you know
Interview with SenDR7	I think if we took everything to heart um I think that seriousness that you know um we would never cope you'd I think you'd see a lot of ill people sort of through it I think that's the way they deal with it because we do see some very horrible pretty horrendous things and you know then you can see some of the radiographers are shaken up they are definitely shaken up over it and the only way to probably deal with it is you've probably made a joke about something you know and you know they've sort of used it to see the smile come back

Appendix 7 – Data matrix for 'use of dark humour' key theme.

Use of dark humour

Location of evidence	Quotes/evidence
Observation 11/8/08 Area C	The DRs joke about a patient having a cardiac arrest in the DID. The DRs laugh about what the patient looked like, what colour his face was and also how stressed everyone was
Observation 13/8/08 staff room	Comments were made about an overweight patient who had attended the department that morning. There was also a conversation about vomit and barium studies going wrong.
Observation 29/8/09 CT	The staff make derogatory comments and joke the size of an obese patient who was so large that he only just fit through the CT scanner
Observation 9/9/08 Area B	Discussion in viewing area about a few patients with unusual conditions who had visited the department over the past week. The DRs joked about these patients and jokes were made about them regarding what they looked like, how they behaved and also about their images.
Observation 2/10/08 MRI	Derogatory comments made about a patient from yesterday
Observation 17/11/08 Area C	DRs comment on what a patient is wearing and laugh about it
Interview with DR1	I think the thing is though that I think you do that in every job though every job I've ever had we've always had a joke about the people other people or like the customers it just seems like it's human nature make a joke of it rather than try and deal with like the yeah possibly yeah cause I think it's it's I mean it's never nice to see patients sort of like in pain it just keeps it sort of it is it is I think to an extent trying to lighten you know the kind of to keep it light
Interview with DR4	I think it's a coping strategy you know if you umm I suppose it depends what you are joking about really but I mean you might umm when you see obese people come in and it's just well it's panic in a way isn't it and oh my God how am I going to get that image (laughs) so I guess you turn it into humour to keep you going it's just a coping mechanism yeah it is well a coping strategy isn't it because you put well you can't cry you can't well you can't show any emotion so the only way you can show it is by joking about it and turning it into something light hearted so I think it is well it probably sounds really callous but it is just a coping mechanism isn't it
Interview with IA4	I think it helps you to cope, to make a joke, otherwise you can get quite depressed I suppose. Oh yes, definitely, it is about how we cope
Interview with IA4	it is you know how you get through it and otherwise you know you'd just get so depressed and so stressed you well you wouldn't cope you have to you know not umm take it into heart too much I know a lot perhaps you do maybe later on but it's good that you can you know well even if something starts off as a joke it brings it to the fore and you can you can then discuss it you know you need to sort of thing there's no point in umm trying to hide things up and pretend it didn't happen. If you take it on board it's not healthy no no.

Interview with Manager	it's a coping strategy um mechanism it's almost like you've got to laugh or you'll cry kind of reaction
Interview with Manager	but umm you're actually dealing with things that are well if they happen to you you would be the stuff of your worst nightmares but because you're in a front line hospital you've got people coming well if you've just had a severe road traffic accident or have got the worst forms of cancer, the things that you absolutely dread and umm it's not actually you know even as I'm sitting here talking to you umm about it on that level well it almost feels uncomfortable but you'd normally cope with it by saying or by treating it a little bit more lightly
Interview with Manager	there was a a patient who umm was very ill and had a very serious neuro cancer a brain brain tumour I can't really remember any of the sort of light hearted remarks that were made about it but there was an element of saying umm well I can't really remember what she said that was the joke and umm it wasn't a funny joke but it was just a umm a way of dealing with and almost saying well that's what we're here for well these sort of things happen or something like that I can't remember exactly the throw away away line that she used to say, yea I'm okay about it I mean what what you're actually communicating is sort I've been through that I've well I know that it was horrible and but I've been through it and I'm actually actually okay and umm, don't worry too much, umm you're actually giving that kind of message umm to somebody yep that I've coped with it umm and you can umm unload an awful lot of that kind of emotional stress that that people experience is dealt with in that almost subliminal sort of humorous sort of way umm but but there is that you know umm thing umm that was horrible umm you know and are you okay, it's the well sort of question er oh you know I heard you had a really really difficult experience it's oh I'm sorry to hear that happened or something like that and they will come back with a flippant remark sort of thing which is actually saying I'm okay you know and I've dealt with it umm and if they promote the conversation then you know they want to talk about it then then you are banging around for a few minutes and then you're gonna throw off a couple of jokes and that's the the end of it so so the well it's er umm it's a coping strategy that often I think is actually very effective a very effective one
Interview with SenDR2	it can be a joking um joking atmosphere sometimes like joking about patients and their misfortunes which is a coping mechanism um it's a way of coping trying to cope with what what they've seen and what they've had to do. I think it's like a detachment you know it's a way of coping with what we've just seen what we've just done um because otherwise you'd go mad I know I would occasionally obviously it gets to you and especially I'll go home and think about it have a cry in certain situations that and a lot of it you can relate to your own life as well yeah if there's a patient that's similar to one of your relatives yeah and it suddenly hits you but I think the majority of the time you know it's a way of coping
Interview with SenDR7	black humour um yes I think that does go on definitely

	yeah it does I think it's the way that that we deal with it because I think if we took everything to heart um I think that seriousness that you know um we would never cope you'd I think you'd see a lot of ill people sort of through it I think that's the way they deal with it because we do see some very horrible pretty horrendous things and you know then you can see some of the radiographers are shaken up they are definitely shaken up over it and the only way to probably deal with it is you've probably made a joke about something you know and you know they've sort of used it to see the smile come back
Interview with SenDR12	yes we joke and then funny things that happen it makes people laugh at um and sometimes it's a bit it's intense isn't it in a meeting or somewhere or you X-ray somebody who's got a great big tumour or something and I think it's a way of relieving I don't know stress I suppose and sharing things with people and sometimes although you make fun of something to cope
Interview with Stud2	things that happen to patients that are unfortunate is not very nice and if it did happen to to to me or you or whatever then obviously we'd take it very seriously I think the only reason that we can so easily joke about it is that we're detached from that person we don't know that person. cause if you get involved you'd never get through the day um you know and that's part of the health care professional and that's just what you've got to do so I think it just does lighten the mood a little bit and I mean we laugh about lots of other things you know misfortunes that have happened to us or funny things that people have said
Interview with SuptDR1	um I think like you say some of it is to sort of cope with the situation sometimes if you see something awful you know sometimes it's a way of sort of coping with it to make it seem less horrible
Interview with SuptDR4	I just think when groups of people get together that's the way conversations tend to go and I don't think that there's not one person that if you would talk to them directly about it they'd probably be devastated you know to hear that they are doing things like that sometimes you don't think about these things again it's a detachment thing as well you know

Appendix 8 – Data matrix for 'blame culture' key theme.

Blame culture

Location of evidence	Quotes/evidence
Observation 13/8/08 Area C	A member of staff from the intensive therapy unit (ITU) came to the DID to find out who had X-rayed a particular patient. All of the DRs were immediately defensive in case they had done something wrong, or that their images weren't optimal. Actually the patient had tuberculosis (TB) and the nurse wanted to arrange for DRs he had come into contact with to be screened. After this one DR discussed with me the whole 'feeling of guilt' idea further and said that as a profession we can be quite defensive, always worrying about what we have done wrong and worried about the consequences, when we should be happy to admit that we are human and sometimes we make mistakes, but move on from it.
Observation 20/8/08 Area B	Equipment faults – how the DR feels when they have over-exposed a patient. Radiation safety. There was a machine fault and the patient was exposed to an unnecessary dose of radiation. The DRs discussed how they felt about this and how guilty they felt
Observation 29/8/08 Area C	Blame culture and admitting to mistakes was discussed. DR4 brought up the machine fault from last week as she still has a feeling of guilt even though it was not her fault. The other DRs reassured her that it was not her fault, although admitted that if it was them they would still be worried about what had happened. Also discussed the filling in of incident forms. The DRs seemed to be worried about how this would reflect on their practice and also the consequences for them of filling out the form and how it might be handled by management.
Observation 11/11/08 Area B	DRs say that they are fed up with apologising to patients about the long wait this afternoon. DRs do not like to keep patients waiting and find this particularly frustrating when they are working really hard and the wait is not through lack of hard work.
Observation 17/11/08 Area C	There is only one DR left in Area C, the others are off at tea break or busy. I wish I could help out, I have a feeling of guilt as I am not able to help, and this is not why I am here
Interview with SenDR7	it's very fast moving there is a lot going on it's a very busy department and um and you know we all are under pressure you know to again uphold the service to the patients
Interview with DR4	I hate it when I'm late and you keep well you just think that if that was you in the waiting room cause somehow when you come for an appointment you do kind of get resigned to the fact that you're gonna be kept waiting but when you see other people going in and out you just get really really agitated and what only might be a couple of minutes seems like forever (laughs) doesn't it so I do find that pressure quite hard sometimes and I just don't like the thought that if it was me sat there I wouldn't like it. I do usually try and explain especially if you can pick up that someone's getting agitated and I always apologise

	when they come in because if you don't they're gonna get aggressive

Appendix 9 – Data matrix for 'visible product' key theme.

Visible product

Location of evidence	Quotes/evidence
Observation 13/8/08 Area C	A member of staff from the intensive therapy unit (ITU) came to the DID to find out who had X-rayed a particular patient. All of the DRs were immediately defensive in case they had done something wrong, or that their images weren't optimal. Actually the patient had tuberculosis (TB) and the nurse wanted to arrange for DRs he had come into contact with to be screened. After this one DR discussed with me the whole 'feeling of guilt' idea further and said that as a profession we can be quite defensive, always worrying about what we have done wrong and worried about the consequences, when we should be happy to admit that we are human and sometimes we make mistakes, but move on from it.
Observation 24/11/08 Area C	Some of the DRs appear to worry about other DRs seeing their images
Interview with Manager	Radiography is different from um say physiotherapy, you have the image. So looking the product happens to a much greater degree in radiography than say physiotherapy because there's the image, you've actually got something there to discuss you know well a physiotherapist goes out and treats a patient but none of the other physiotherapists can see that patient so unless the physiotherapist actually comes back and says well this is my patient and well describes exactly what the situation is the other physiotherapists will not be aware of it. But if you go and do a chest X-ray or any other kind of X-ray, there it comes up on the screen and actually it's in front of everyone, it's a very public area which can be, well which I think is actually in some ways far more challenging. When it's an image on a screen you can see the image coming up and then boom there it is there it is on the screen, two feet across for the world and his wife to see and usually that's when I come strolling into the viewing area and I see the radiographers worry then! So yes, so your output is far more public.
Interview with SuptDR1	with CR it's much more difficult to hide. If you've done an image that you think oh dear you know you can't just put it straight into the reject bin. It's up there for everybody to see.