An Inquiry into Compassion in Diagnostic Radiography.

Submitted by Jill Bleiker to the University of Exeter as a thesis for the degree of

Doctor of Philosophy in Medical Studies in December 2019

This thesis is available for Library use on the understanding that it is copyright

material and that no quotation from the thesis may be published without proper

acknowledgement.

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature:

Ju Bleier

Abstract

Compassion is a poorly understood concept in Diagnostic Imaging (DI), but an increase in its focus was recommended in the Francis Report (2013). Much of the healthcare literature including policy and protocol has focussed on benchmarking and individualising compassion. This project aimed to conceptualise compassion in order to understand its meaning and application in DI.

A constructivist approach was taken with appropriate ethical approval. Thirty-four semi-structured interviews with a purposive sample of DI ex-patients, five focus groups with approximately six student radiographers and one group of recently qualified radiographers were conducted. Tweets were also harvested from a Twitter journal club discussion between radiographers of the author's published literature review. Data were transcribed and analysed thematically.

Compassion in DI is conceptualised according to three themes constructed from the data: 1) Perceptible elements of the procedure; 2) Underlying qualities, skills and abilities of radiographers; 3) Proposed moral and ethical principles. Perceptions of an impersonal 'production-line' procedure can be avoided and rapport developed by exercising skills and abilities in asking patient-specific clinical questions and giving explanations. Offering information to patients about their x-ray images may compassionately reduce uncertainty and anxiety. Ethically good practice need not necessarily involve in every interaction expressions of compassion, feelings in a radiographer of caring about their patient or feelings in patients of being valued. Contradictory organisational values were exposed with an over-emphasis on individuals' responsibility for providing compassionate care.

The original contribution to knowledge is a concept of compassion bespoke to DI, components of which include qualities, skills and values underpinning perceptible acts and behaviours aimed at ameliorating suffering. Radiographers could take a proactive and critically questioning stance to the conflicting demands of efficiency and throughput at the expense of patient care. Clinical and communication skills teaching and reflective learning would promote compassionate professionalism. Compassionate future healthcare policy could be derived from an interpersonal rather than individualist philosophy.

Contents

Abstract	2
Acknowledgments	. 10
Published work	. 12
Definitions, abbreviations and acronyms	. 13
Chapter 1: Setting the scene	. 17
1.1 Introduction	. 17
1.2 Background to the research: The Francis Report	. 17
1.2.1 Response of the NHS and associated bodies	. 19
1.2.2 Response of the nursing profession	. 19
1.2.3 Response of the medical profession	. 20
1.2.4 Response of the Society and College of Radiographers (SCoR)	. 20
1.3 Rationale for the research	. 21
1.4 Research question	. 22
1.5 Aim	. 22
1.6 Objectives	. 23
1.7 Introduction to Diagnostic Imaging (DI)	. 23
1.7.1 The DI department: imaging modalities and service delivery	. 23
1.7.2 The radiography profession: titles and career structure	. 26
1.7.3 Radiography training and education	. 26
1.8 My study in relation to DI	. 27
1.9 My study: theoretical underpinnings and qualitative research	. 27
1.9.1 Justification for using a qualitative approach	. 29
1.10 Reflexivity and writing in the first-person	. 30
1.11 My personal beliefs and values and their relationship with this study	. 31
1.12 Outline of chapters	. 33
1.13 Chapter summary	34

Chapter 2: Literature review	. 35
2.1 Introduction	. 35
2.2 Search protocol	. 36
2.3 Compassion: origins, etymology, definition	. 41
2.3.1 Defining and conceptualising compassion in healthcare and radiography	. 42
2.4 Political and contextual issues and debates around compassion	. 45
2.4.1 Quantifying compassion	. 45
2.4.2 Individualising compassion	. 46
2.4.3 Is compassion an absolute prerequisite in good patient care?	. 48
2.4.4 Can compassion be taught?	. 49
2.5 Features unique to DI not common to other health professions	. 53
2.6 Associated concepts	. 54
2.6.1 Care	. 54
2.6.2 Empathy	. 55
2.6.3 Intelligent kindness	. 56
2.7 The role of emotions in compassion and care: emotional intelligence, emotional labour	. 58
2.8 Barriers to compassion	. 62
2.8.1 Empathic distress, empathy decline and compassion fatigue	. 63
2.8.2 Stress and burnout	. 64
2.9 Coping with stress and emotional barriers to compassion	. 65
2.9.1 Humour	. 66
2.9.2 Resilience	. 67
2.10 Key messages from the literature review	. 68
2.11 Chapter summary	. 69
Chapter 3: Research paradigm and methodology	. 70
3.1 Introduction	. 70

3.2 Research paradigm; theoretical and philosophical foundations	70
3.3 Qualitative methodology	72
3.4 Research design	73
3.4.1 Sample size	74
3.4.2 Purposive sampling of ex-patients from a service user involvement	
group	76
3.4.3 Patients	76
3.4.4 Students and recent graduate radiographers	77
3.4.5 Radiographers	78
3.4.6 Recruitment and response	79
3.5 Quality in qualitative research	31
3.5.1 Credibility	32
3.5.2 Originality	32
3.5.3 Resonance	33
3.5.4 Usefulness	33
3.6 Ethical considerations	34
3.6.1 Student-specific considerations	36
3.6.2 Patient-specific considerations	37
3.6.3 Radiographer-specific considerations	87
3.6.4 Data assembly considerations	38
3.6.5 Data treatment considerations	38
3.7 Methods 8	39
3.7.1 Semi-structured interviews	92
3.7.2 Focus groups	93
3.7.3 Online journal club discussion	93
3.8 Transcription of interview and focus group data	94
3.8.1 Treatment of Twitter data	96
3.9 Thematic Analysis (TA)	96

	3.9.1 First stage coding	99
	3.9.2 Use of data analysis software	. 101
	3.9.3 Second stage coding	. 102
	3.9.4 Classification and abstraction	. 103
	3.9.5 Concept formation	. 103
	3.9.6 Notes and memo writing	. 104
3.	.10 Chapter summary	. 105
Cha	pter 4: Findings – an overview	. 107
Cha	pter 5: Theme 1 - Components of compassion which can be seen	and
elt	during a DI examination	. 114
5.	.1 Introduction	. 114
5.	.2 Perceptions of a quick procedure	. 115
	5.2.1 Key findings	. 115
	5.2.2 In-and-out radiography	. 115
	5.2.3 Production line radiography	. 118
5.	.3 Technical competence and emotional responses in 'the job' of image	
a	cquisition	. 121
	5.3.1 Key findings	. 121
	5.3.2 Technical and interpersonal components	. 121
	5.3.3 Emotions and feelings	. 123
	5.3.4 Professionalism and compassion	. 125
5.	4 Compassion in the radiographer-patient interaction	. 127
	5.4.1 Key findings	. 128
	5.4.2 The dialogue between radiographer and patient	. 128
	5.4.3 Introductions and explanations	. 131
	5.4.4 Verbal and non-verbal communication	. 134
5.	.5 Finding compassion in the mechanical and task-based features of	
ra	adiography	. 138

	5.5.1 Key findings	. 138
	5.5.2 The radiographic environment	. 139
	5.5.3 The role of the radiographer	. 140
	5.6 Summary of theme	. 142
C	Chapter 6: Theme 2 - The qualities, skills and attributes associated wit	h a
С	ompassionate radiographer	. 144
	6.1 Introduction	. 144
	6.2 The quality of authenticity in a radiographer and its relationship with	4.40
	compassion	
	6.2.1 Key findings	
	6.2.2 Faking it	. 147
	6.2.3 Personal and professional qualities	. 150
	6.2.4 "You don't need to be compassionate every day"	. 153
	6.3 Radiographers' skills in interpreting cues and adapting communication	
	skills	. 156
	6.3.1 Key findings	. 156
	6.3.2 Hidden emotions and behavioural cues	. 156
	6.3.3 Adapting behaviours and communication	. 159
	6.3.4 Giving information	. 161
	6.4 Qualities and skills in understanding and relating to the patient	. 162
	6.4.1 Key findings	. 163
	6.4.2 Empathy, sympathy and pity	. 163
	6.4.4 Non-judgmental acknowledging and accepting	. 167
	6.5 Learning and developing qualities and skills in the process of becomin compassionate radiographer	•
	6.5.1 Key findings	. 169
	6.5.2 Learning compassion	. 170
	6.5.3 Emotional development and management	. 176

	6.5.4 Proactivity, reflection and determination	179
	6.6 Summary of theme	181
С	chapter 7: Theme 3 - The principles underpinning compassion in DI	183
	7.1 Introduction	183
	7.2 Values of the individual and the organisation	185
	7.2.1 Key findings	185
	7.2.2 Personal and professional values	185
	7.2.3 NHS values	187
	7.2.4 Valuing the patient	189
	7.3 Humanity and human connection	191
	7.3.1 Key findings	192
	7.3.2 Caring for and caring about	193
	7.3.3 Respect and sensitivity	195
	7.3.4 Connection, engagement and rapport	196
	7.4 Kindness towards self and others	200
	7.4.1 Key findings	. 201
	7.4.2 Differing types of support for radiographers and students	201
	7.4.3 Kindness in professional practice	. 206
	7.4.4 Promoting a culture of kindness and compassion	210
	7.5 Summary of theme	211
С	hapter 8: Discussion and reflections	214
	8.1 Components of compassion which can be seen and felt during diagno	ostic
	imaging	218
	8.2 The qualities, skills and attributes associated with a compassionate radiographer	223
	8.3 The principles underpinning compassion in DI	. 232
	8.4 Reflections on the methods used in this study	. 237
	8.5 Trustworthiness of this research	. 244

	8.5.1 Credibility	245
	8.5.2 Originality	245
	8.5.3 Resonance	246
	8.5.4 Usefulness	246
	8.5.5 Reflections on the criteria according to the CASP checklist .	247
	8.5.6 Reflections on Braun & Clarke's criteria	249
	8.6 Reflections on the research process	254
	8.7 Chapter summary	257
C	hapter 9: Conclusions and recommendations	259
	9.1 Introduction	259
	9.2 Key findings which contribute to a conceptualisation of compassion bespoke to diagnostic imaging	260
	9.3 Radiographic practice	
	9.4 Research	
	9.5 Education and training	
	9.6 Professional and organisational policy	
F	inal words	
	eferences	
	ppendices	
	Appendix 1 – Ethical approval letter	
	Appendix 2 – Volunteer information sheets for ex-patients	
	Appendix 3 – Volunteer information sheets for students	
	Appendix 4 – Volunteer information sheets for students	
	Appendix 5 – Consent form (interview and focus groups participant	
		-
	Appendix 6 – Interview schedule	
	Appendix 7 – Focus group schedule	318
	Appendix 8 - Second cycle coding example	

List of Figures

Figure 1: Flowchart for patients referred for projection imaging	25
Figure 2: Search strategy based on the PRISMA systematic search n	nethod
(Moher et al., 2009)	37
Figure 3: Intelligent kindness: a virtuous circle (Campling, 2015)	57
Figure 4: Schematic summary of my constructivist research paradigm	71
Figure 5: Schematic diagram showing phases of analysis	98
Figure 6: Visual display of themes under construction inspired by	Thesis
Whisperer	105
Figure 7: Main themes and subthemes	110
Figure 8: Components of compassion which can be seen and felt durin	g a Dl
examination	111
Figure 9: Qualities, skills and attributes associated with a compass	sionate
radiographer	112
Figure 10: The principles underpinning compassion in DI	113
List of Tables	
Table 1: Returns from the eight databases chosen	38
Table 2: Returns from searches of the main radiography journals	39
Table 3: CASP checklist with reflections	248
Table 4: Braun & Clarke's checklist with reflections	254

Acknowledgments

My gratitude goes first and foremost to my supervisors. Professor Karen Knapp, whose wise counsel and unflappable nature kept me calm throughout the inevitable crises; just two or three words were usually enough to get me back on course. Dr. Sue Hopkins, for whom I was a first supervisee post-completion of her own PhD provided guidance, support and countless snippets of useful information which have undoubtedly saved hours of work. As researchers much more familiar with the positivist tradition, I am in awe of their efforts to navigate

with me their way through the ambiguities of qualitative research. Dr Glen Johnson trod with me the primrose paths of ideas for the first eighteen months of this PhD before her retirement and her successor, Dr Sarah Morgan-Trimmer embraced a research field and profession which must at times have seemed quite baffling, yet still gently and kindly steered me along my constructivist pathway. I am grateful also to my upgrade examiners, Professor Nicky Britten and Dr Sarah Dean for their belief in my project and their constructive and supportive comments and feedback at my upgrade.

To my friends Vanessa, fellow PhD candidate and Niki, clinical psychologist advisor to this PhD and for their empathy, support and encouragement through the hard times and the good.

To Lucy Mogford for transcribing my interviews and focus groups with consummate professionalism.

To Nick Wozinska and Amanda Bolderston who selected my review article for discussion in the online journal club #MJRC which in turn generated rich data from radiographers.

I am also indebted to Lynda Johnson, professional officer for the College of Radiographers and Dr Tracy O'Rourke for their legal and professional advice and to the willing volunteers who gave up their time to share their experiences with me for the sake of this project;

Finally to my husband, Phil: a caring, supportive and somewhat mystified positivist who, I think and hope, is coming round to the idea that quality as well as quantity is a worthwhile instrument in conducting and evaluating research.

Please note; an editor has not been used in the construction of this thesis.

Published work

Some aspects of this research have been published during the conduct of this study. All are the original work of the author.

Papers

Bleiker, J, Knapp, K.M., Hopkins, S.J., Johnston, G. (2016). Compassionate care in radiography recruitment, education and training: A post-Francis Report review of the current literature and patient perspectives. *Radiography*, 22(3), pp 257-262

Bleiker, J., Knapp, K.M., Morgan-Trimmer, S., Hopkins, S.J., (2018). "It's what's behind the mask": Psychological diversity in compassionate patient care. *Radiography*, *24*, pp.S28-S32.

Bleiker, J., Morgan-Trimmer, S., Hopkins, S.J. (2019). Navigating the Maze: Qualitative research methods and their philosophical foundations. *Radiography*, 25, S4-S8

Conference presentations

Bleiker, J. (2019). Compassionate care in radiography. *UK Imaging & Oncology Congress*. Liverpool, 10-12 June.

Upcoming presentation

Bleiker, J. (2020). Compassion in diagnostic imaging. *European Congress of Radiology*. Vienna, 13-15 March.

Definitions, abbreviations and acronyms

Allied Health Professions (AHPs): Any health care profession other than nursing, medicine and dentistry of which diagnostic and therapeutic radiography is one.

College of Radiographers (CoR): The sole subsidiary of the Society of Radiographers. The College shares common fundamental objectives with the Society in seeking to promote and develop the science and practice of radiography, including education and research.

Continuing Professional Development (CPD): A requirement of their professional registration with the HCPC (see below), radiographers must demonstrate in a CPD portfolio that they are maintaining their competence and furthering their knowledge. CPD can take a wide variety of forms including attending courses, undertaking higher degrees, teaching or presenting and reflection. The portfolio may be stored electronically or as hard copy.

Diagnostic image: The image produced from a radiographic examination which enables a diagnosis to be made.

Diagnostic imaging (DI): That branch of radiography concerned with diagnosis in contrast with therapeutic radiography (RT) which is concerned with the treatment of cancer through the use of radiation.

Diagnostic radiographer: a degree-level and HCPC registered health professional who can safely and accurately produce high quality images to diagnose injury or disease. They may also produce the resultant imaging examination report.

Emergency Department (ED): also, and perhaps better known as Accident & Emergency (A&E), the main route into tertiary care for those suffering from an acute health problem requiring immediate attention.

Foundation Trust: An NHS trust whose operation was devolved from central government with the aim of meeting the needs of the local population. Initially perceived as superior to non-foundation NHS Trusts, this status was at odds with the findings of the Francis Report (2013) into events at the Mid-Staffordshire NHS Foundation Trust in 2010. There is now no longer a distinction between

Foundation and other NHS trusts and the notion that every trust should gain Foundation status has been abandoned.

General Practitioner (GP): medical practitioner based in the community.

Health and Care Professions Council (HCPC): A UK health regulator established through the Health Professions Order 2001. Its role is to protect the public by setting and maintaining standards of proficiency and ethical conduct for the professions it regulates, as well as protecting the titles of those professions. In 2019 it was regulating sixteen professions including diagnostic radiography.

Imaging modalities: Different ways of imaging a patient, for example projection imaging, CT, MRI, Radio-nuclide imaging and Ultrasound are all imaging modalities described in more detail thus:

Projection Imaging: Historically and still known as 'plain film' despite the advent of digital imaging, this is the acquisition of static two-dimensional black and white images of the body using x-rays. The denser the body part, the whiter the image, so, for example on a chest x-ray, the heart and ribs will be white and the air-filled lungs black. The term 'plain film' is a misappropriation of its original meaning of 'planar radiography'; i.e. images of the body taken in two or more planes (Smith and Webb, 2012).

Computed Tomography (CT): X-rays delivered by a rotating mechanism which produces cross-sectional images of the body; known as a CT and less commonly CAT (computerised axial tomography) scan.

Magnetic Resonance Imaging (MRI): uses magnetism rather than x-rays to produce cross-sectional images of the body similar to those produced by CT but with greater definition of the soft tissues.

Radio Nuclide Imaging (RNI): Imaging the body using radio-isotopes; previously termed Nuclear Medicine.

Ultrasound: An imaging modality that uses sound waves as opposed to radiation or magnetism to produce images of the body.

IR(ME)R 2017: The Ionising Radiation (Medical Exposure) Regulations (IR(ME)R) specify the responsibilities of duty holders (the employer, referrer, practitioner and operator) for radiation protection. Minimising unintended, excessive or incorrect medical exposures ensures that the benefits outweigh the risks of each exposure (justification) and keeps radiation doses as low as reasonably practicable (ALARP) for their intended use, known as optimisation. IR(ME)R 2017 replaces the 2000 regulations (including amendments made in 2006 and 2011). The full regulations can be found at www.legislation.gov.uk.

NICE: The National Institute of Health and Care Excellence provides evidence-based national guidance and quality standards advice to improve outcomes for those using the NHS health and social care services.

Radiographer (diagnostic): a health professional who produces high quality medical images that assist medical specialists and doctors to diagnose or monitor a patient's injury or illness.

Radiographer (therapeutic): specialist health care professionals qualified in the localisation and treatment of cancer and some benign diseases using ionising radiation.

Radiography: the profession and practice of medical imaging. Also the title of the peer-reviewed journal of the Society and College of Radiographers and the European Federation of Radiographer Societies.

Radiotherapy: the use of ionising radiation, usually high energy x-rays to treat disease. Radiotherapy is usually used to treat malignant disease (cancer). It is sometimes used to treat benign tumours and some benign diseases and is undertaken by therapeutic radiographers.

Reflective practice: A key component of CPD in which a radiographer undertakes careful and balanced self-examination of their own practice in order to improve professionally.

Reflexivity: A process of self-reflection, especially in terms of the place and role of the researcher in the research.

The Society and College of Radiographers (SCoR): is the combined trade union and professional body representing the professional, educational, public and workplace interests of radiographers with the College of Radiographers a charitable company limited by shares and registered with the Charity Commission for England and Wales and the Office of the Scottish Charity Regulator. The issued share capital of the College is owned by the Society of Radiographers.

Society of Radiographers (SoR): Founded in 1920, the SoR is the trade union representing the interests of over 90% of the diagnostic and therapeutic radiographers in the United Kingdom.

X-ray tube: an insulated glass and metal vacuum tube that produces the x-rays used in medical imaging.

Chapter 1: Setting the scene

Patient participant: "Compassion's a funny word isn't it?

Interviewer: "Yes, that's why I'm doing a PhD in it"

(Patient interview 24)

1.1 Introduction

The work on which this thesis is based sought to provide a meaningful, evidencebased interpretation of a recommendation for an increased focus on compassion seen in the Francis report of 2013 into failures of care at the Mid-Staffordshire NHS trust. The aim was to clarify those components which feature in a concept of compassion specific to diagnostic imaging. This was to be achieved by reaching an understanding of its meaning and expression from the perspectives of patients, radiographers and student radiographers involved in diagnostic projection imaging (more commonly referred to as 'plain x-ray'; see glossary), providing new information for radiography education, practice and research. This introductory chapter sets the scene for my thesis by laying out the background to, and rationale for the study followed by the research question, aims and objectives. A description of the medical imaging department and radiography profession introduces the setting for readers not intimately familiar with this environment and helps place my study in this context. The chapter also locates me in the project by introducing my chosen approach to the research which is discussed in depth in Chapter 3 and includes the rationale for my choice of a qualitative methodology, a personal account of my position as researcher, retired radiographer and lecturer and the role of reflexivity in this project. The chapter concludes with a summary of the remaining chapters in this thesis.

1.2 Background to the research: The Francis Report

When sometimes catastrophic incidents of poor patient care at the Mid-Staffordshire NHS Trust came to light in 2010, an inquiry was launched which led to publication of the Francis Report highlighting key areas where patients were failed and which had led to "appalling suffering" (Francis, 2013a, p3). These areas included culture, practice and priorities of both management and individuals. This was not the first time that the complexity of the patient experience and how it is affected at multiple levels in healthcare organisations had been highlighted; five years earlier King's Fund publications were beginning to tease out institutional, organisational and individual factors (Cornwell, 2009), although it seems that major failures of care stimulate responses more than proactive attempts to prevent them. Amongst the report's recommendations was:

"...an increased focus on a culture of compassion and caring in [nurse] recruitment, training and education...and professional development...and the practical requirements of delivering compassionate care in addition to the theory" (Francis, 2013a, p105).

Post-Francis, appearance of the term compassion in policy and protocol escalated, although it is unclear why the Francis Report appeared to trigger such a wide-ranging response when other failures of care had been equally well documented, e.g. the Alder Hey and Bristol Children's Hospital inquiries, and cases such as that of Victoria Climbié and Baby P (Walshe, 2003) to name but a few; the King's fund commented on the position of the Francis report in a "long line of reports on failures of patient care" (King's Fund, 2013). The first major inquiry into failures of care which mentioned compassion was the Ashworth Special Hospital: Report of the Committee of Inquiry in 1999, in which one patient care team leader remarked that the nursing team found it "difficult to keep the compassion of nursing to the fore with this patient group" (DoH, 1999, section 2.14.20). From a search of Department of Health (DoH) policy documents, it is clear that compassion was not a concept that originated from the Francis Report; the earliest publication found in the DoH archive which mentions care is The National Health Service: a service with ambitions (HMSO, 1996) and the first to include the term compassion (albeit once in ninety-three pages) is Our Healthier Nation: a contract for health (DoH 1998). DoH reports on quality of care from 2001-2008 predate the Mid-Staffordshire episode and even before the events at the Trust were uncovered, compassion had been a defining value of the NHS; the term appearing in both draft and final versions of the NHS Constitution (DoH, 2008, 2013) and in the King's Fund Point of Care programme (Goodrich and

Cornwell, 2008). In 2008, well before the failings at the Mid-Staffordshire trust came to light, entrepreneur and former nurse Ann Gloag personally funded a three-year one million-pound Leadership in Compassionate Care (LCCP) scheme in Scotland with the aim of placing compassion back at the heart of nursing care. Belinda Dewar and colleague's research within this programme identified seven features of compassionate relationship-centred care, namely, curiosity; connection; courage; collaboration; consideration; compromise and celebration (Dewar and Nolan, 2013). Dewar in her thesis wonders about the politicisation of compassion (B. J. Dewar, 2011) and I shared her concern that the term may be little more than a political slogan; the Government response to the Francis Report referred to compassion no less than 59 times – almost once per page of the report (DoH, 2013a).

The Francis Report focused chiefly on the nursing and medical professions, however there are also examples of patients unhappy with their experiences at the hands of physiotherapists, receptionists and porters to name but a few, and my own research substantiates this (Bleiker, Knapp and Frampton, 2011). Responses varied in the amount of attention given to the recommendation concerning compassion when addressing the issues raised in the report. The responses to the report from government and health professions to this recommendation were swift and are discussed next.

1.2.1 Response of the NHS and associated bodies

In the Keogh review for NHS England, compassion received one mention in the context of some NHS trusts' responses to patient complaints, deemed lacking in compassion in the report (Keogh, 2013). Other reports focussed on a range of issues, e.g. patient safety (Berwick, 2013); inequalities in health and care provision (DoH, 2014b); management and leadership (Rose, 2015) with little or no mention made of compassion *per se* (Crawford *et al.*, 2014).

1.2.2 Response of the nursing profession

A report by the Chief Nursing Officer circulated after the issues at Mid-Staffordshire had come to light and just before publication of the Francis Report recommended incorporating 'the six Cs' (care, compassion, competence,

communication, courage and commitment) into a culture of care (Chief Nursing Officer, 2012), but there was a lack of clarity with regard to what was meant by these concepts and their application in healthcare delivery. In this document compassion was described as "how care is delivered through relationships based on empathy, respect and dignity" (p13). The six Cs share some commonalities with Dewar's seven Cs of compassionate relationship-centred care (Dewar 2011, p200-206) but it is not known if there is any association between the two.

1.2.3 Response of the medical profession

The response from the General Medical Council (GMC) to the Francis Report focussed on the more identifiable and measurable elements of care including training and education, reporting and accountability and made just one reference to compassion in general terms (GMC, 2013).

1.2.4 Response of the Society and College of Radiographers (SCoR)

The SCoR's response concurred with the King's Fund's concerns at the narrowness of the focus to principally two of the highest profile health professions, commenting that:

"some recommendations ... should apply to the spectrum of healthcare professions." (SCoR, 2014, p2).

Similar to that of the GMC, the SCoR's response focussed on those aspects of patient care that could be readily measured, but only generalised as 'compassionate' (SCoR, 2014). Associated with the publication of the Francis Report was a noticeable increase in the appearance of the term compassion in radiographers' professional Code of Conduct; from none in 2008 to eight in the revised version in 2013 (SoR, 2008, 2013). The only radiographers' professional document found which made no mention of the term post-Francis was the HPC's Standards of Conduct, Performance and Ethics (2008), later the HCPC's Standards of Proficiency (HCPC, 2013), although compassion as an act was referred to obliquely in terms of a duty to act if a patient's health or safety is perceived to be at risk.

In the main, responses to the Francis report did not take up the question of what compassion meant and how the recommendations might be meaningfully implemented. Ramsay was one of few who argued at the time that more research should first be undertaken to understand the meaning of compassion and how to integrate it into healthcare curricula before any changes were made (Ramsay, 2014) and Sinclair and colleagues' comprehensive review of the literature on compassion in healthcare concluded that there is a limited understanding of the key behaviours and attitudes that lead to reports of compassion by patients (Sinclair, Norris, *et al.*, 2016). It is these most salient of points that determined the starting point for this research.

1.3 Rationale for the research

Not only was the meaning and nature of compassion indeterminate, I further noticed with curiosity this phrase in the Francis Report:

"Good practical training should only be given where there is good clinical care. Absence of care to that standard will mean that training is deficient. Therefore, there is an inextricable link between the two that no organisation responsible for the provision, supervision or regulation of education can properly ignore." (Francis, 2013a, p60)

As a retired clinical and academic radiographer of nearly forty years out of the seventy that the NHS has been in existence, this phrase caused me to wonder not only about the meaning of compassion, but also about its place in radiography education and clinical practice. From a review of wider healthcare publications came a suggestion that the relationship between patient and practitioner is a core constituent of compassion (DoH, 2013b; Dewar and Cook, 2014; Goodrich, 2016; Taylor *et al.*, 2017). In the radiography literature, there is one concept analysis of compassion in radiotherapy, and more recently a discussion paper regarding a suitable pedagogy (Hendry, 2019), otherwise, there is little to be found in radiographic journals, texts and professional documents regarding the meaning and experience of compassion in the context of diagnostic imaging (herewith DI) and how this might inform training and education. The radiographer-patient

interaction during a diagnostic projection imaging procedure¹ shares with other health care professions some common features, but also contains unique ones, namely the exceptionally time-brief, task-focussed and highly technical nature of a projection imaging examination (Hartmann, Rill and Arreola, 2010; Strudwick, 2011). The purpose of this research was to contribute to the radiography evidence base by exploring the experiences of patients, student- and qualified radiographers in DI using a qualitative constructivist methodology. This sees knowledge as a construction from subjective attitudes and beliefs in interaction with experiences in a social context. The results of this study will provide new knowledge in clarifying more explicitly the meaning of compassion in DI and how it is experienced; and offer recommendations for radiography undergraduate and post-graduate education and practice, future research and policy. The ultimate goal is for this knowledge to benefit both practitioner and patient, with the wider purpose of contributing to a profession and organisation dedicated to care and caring.

1.4 Research question

What are the principal components in a conceptualisation of compassion and how is compassionate care experienced and practised in the context of diagnostic imaging?

1.5 Aim

To conceptualise compassion from an exploration of the experiences, feelings, attitudes and opinions of patients, students and radiographers during and after diagnostic projection imaging.

_

¹ The term projection imaging is intended to represent the static two-dimensional black and white images produced when a patient is x-rayed. Despite the advent of digital imaging and withdrawal of film, the term 'plain film' continues to be that most used by radiographers and consequently students returning from clinical placement and references to plain film will be seen in the data extracts principally in the results sections.

1.6 Objectives

- To interpret student and recent graduate radiographers' constructions and meaning-making of compassionate patient care from their observations of their clinical radiographer educators and role models during clinical placement;
- To interpret ex-patients' attitudes, constructions and meaning-making of their care following diagnostic projection imaging;
- To interpret an online journal club discussion by radiographers of the published review of the literature;
- To utilise the results to conceptualise compassion in the context of DI;
- To discuss what can be learned from the results that might inform radiography education, practice and professional development.

Before outlining the theoretical and methodological underpinnings of this study there follows an explanatory introduction to radiography so that readers not familiar with its principles and practice may become better acquainted.

1.7 Introduction to Diagnostic Imaging (DI)

This section offers the reader an overview of diagnostic medical imaging in order to provide the context necessary to the study. It is a generalised description distilled from departments in which I have worked and my study participants have either undertaken or undergone DI. It describes the organisational aspects of radiographic practice, i.e. imaging modalities and service delivery together with an explanation about the course student radiographers attend and the profession they enter. The definitions on pages 13-16 also provide the reader with a list of radiographic terms and their definitions.

1.7.1 The DI department: imaging modalities and service delivery

DI departments house a range of imaging modalities which are situated in various locations in a hospital according to need; for example there may be x-ray rooms close to the emergency department (ED) for critical referrals for projection imaging, whilst less urgent referrals from out-patients departments and GPs may

be imaged elsewhere in the department or the hospital. Cross-sectional imaging (CT and MRI scanners) and other scanning modalities including ultrasound, radio-nuclide imaging and bone densitometry may be found in multiple locations in larger hospitals. Modalities such as mammography are usually located in dedicated breast screening departments and there are also imaging suites for fluoroscopic examinations frequently organised by the clinical speciality they serve such as gastro-enterology or cardio-thoracic medicine and surgery. A mobile imaging service provides mainly projection (plain film) imaging to those unable to travel to the department, because they are too ill, infectious or perhaps immuno-compromised, or else are undergoing procedures in the operating theatres requiring intra-operative imaging. Larger general and teaching hospitals tend to provide most if not all modes of imaging, smaller and cottage hospitals may offer a more limited service. For an outline explanation of the various modalities please see the definitions on pages 13-16. Patients are referred for imaging by a health professional who satisfies criteria for adequate training laid down in the Ionising Radiation (Medical Exposure) Regulations (DoH, 2017a) and, if able, patients attend the department either as an in- or out-patient. Imaging is undertaken by an appropriately qualified medical imaging professional, most commonly, but not always, a radiographer. The flowchart in figure 1 illustrates a typified course of events for a patient attending for diagnostic projection imaging.

Patient referred for imaging examination from the ED, GP, in-or out-patients department. Referral can be in electronic or hard copy form

I

Patient presents at the x-ray department for imaging either on foot, in a wheelchair or on a trolley

Patient is directed to a waiting area close to the x-ray room where the examination will take place

I

Patient is called either by a radiographer or radiographer assistant and if appropriate to the examination asked to change into a radiolucent gown and remove radiopaque artefacts

Patient is called into x-ray room for the examination where checks are made for correct identification of both patient and examination

Once the examination is completed patient waits either in the x-ray room or back outside in the waiting room until the radiographer is satisfied that the images are acceptable

Patient leaves the department either to return home, to the ward or another department for other tests and investigations, or to see the referrer for their results

Figure 1: Flowchart for patients referred for projection imaging

1.7.2 The radiography profession: titles and career structure

The title 'radiographer' is protected in law under the Health and Social Work Professions Order 2001 and the profession is regulated by the Health and Care Professions Council (HCPC); anyone claiming this title must have attained set standards of education and training and be registered with the HCPC (HCPC, 2018). Graduate entry to the profession is at the Agenda for Change (AfC) Band 5, (DoH, 2014a) although the career structure now begins with Assistant Practitioners working at lower grades but under the supervision of a band 5 radiographer (DoH, 2003). Radiographers can undertake higher level training and education in order to specialise in a modality or progress their careers at bands 6 and 7, with the top of the profession at that of consultant radiographer working at band 8. Additionally radiographers may move into management, education and research; sometimes leaving clinical practice, at other times performing combined clinical and non-clinical roles. The role of a radiographer is widely misunderstood; frequently perceived as a technician following instructions, radiographers are autonomous professionals undertaking complex procedures requiring specialist knowledge and skills and with responsibility for justifying the radiation dose administered to their patients under the Ionising Radiation (Medical Exposure) Regulations (IRMER 2017) (DoH, 2017a) and the Ionising Radiation Regulations (IRR 2017) (DoH, 2017b).

1.7.3 Radiography training and education

Undergraduate radiography consists of a three-year university pre-registration course leading to a Bachelor of Science degree in either diagnostic radiography or radiotherapy. Gaining this entitles them to apply for a place on the HCPC register of professional radiographers. Classroom learning is augmented with practical experience gained from clinical placement and students are rigorously tested and assessed throughout their time in training. Students learn the theoretical foundations and practical application of medical imaging physics and technology as well as in-depth study of anatomy, physiology and patient care. They also undertake undergraduate research and explore leadership and management. Post-graduation, radiographers engage with lifelong learning and personal and professional development through undertaking CPD activities and

reflection, which is a condition of their continued professional registration. They can also undertake further formal training to qualify as clinical specialists in modalities such as CT and MRI, and/or undertake higher level study leading to a post-graduate diploma or Master's degree. Radiographers may also conduct research either in-house or as part of a more formalised qualification such as EdD or PhD with career pathways in education, research or leadership.

1.8 My study in relation to DI

DI is an umbrella term for a large and complex range of techniques used to produce high quality images to diagnose injury or disease (SoR, 2018). Whilst some of the ex-patients in my study had undergone a range of imaging examinations, the study was confined to projection imaging as the modality most commonly performed (NHS England, 2014) and which epitomises the time-bound, task-focussed and technical nature of the experience for both patients and practitioners. My research questions are exploratory; they seek to understand and create meaning around the concept of compassion in this specific context, rather than hypothesising and testing theoretical ideas around it. Implied then is a qualitative rather than quantitative approach which is discussed in detail in Chapter 3, but introduced here as part of the scene-setting for the rest of the thesis.

1.9 My study: theoretical underpinnings and qualitative research

The aim in this thesis was to explore the philosophical truth around the concept and meaning of compassion in patient care during diagnostic imaging by learning from those involved how it is both experienced and practiced so that recommendations could be made for education and future research. However what is understood and agreed as 'the truth' as well as the means and manner of the approach to its uncovering differ at philosophical and epistemological levels. At the metaphysical level, debate lies broadly between Realism and Idealism; in the former, truth is seen as an external reality to the mind and discovering this truth is determined empirically using experience (from the Latin root 'to test'),

experimentation and observation to make deductions and generalisations. Idealists, on the other hand, see the truth or reality as a mental construction, with an internal interpretive component as well as an external manifestation (Cottingham, 2008). The complexity of this debate is encapsulated by the philosopher Immanuel Kant (1724-1804) who, although endorsing the idea of truth as a correspondence with something objective, also grappled with the impossible to ignore notion of using one's own internal mental processes to ascertain the truth of a proposition, however objectively appraised. Historically, the dominant paradigm in research was positivist, with John Stuart Mill (1806-1873) a key proponent of the use of 'hard' science methodologies in the 'soft' social sciences (Guba and Lincoln, 1994) although even then, critical voices were questioning the empirical status quo, challenging the notion that the natural sciences could be studied in the same way as social sciences with their focus on lived experiences, meaning and developing theory (Denzin, 2008). Positivist critics of interpretivist research allege that subjectivism weakens quality and rigour; in other words, qualitative methods do not conform to quantitative standards. Thus key challenges for qualitative researchers lie in addressing a prevailing paradigmatic inflexibility towards, and unifaceted approach to appraising its value and worth together with a distrust of subjectivity and what are regarded as non-scientific methodologies.

Were this project aiming to inform policy and protocol, a positivist paradigm might have been appropriate, with compassion seen objectively as located perhaps in an individual radiographer or imaging department and possibly utilising quantifiable scales to indicate levels of compassion. Recommendations from the resulting thesis might have included ideas for measurable improvements in compassionate patient care, with the aim of achieving targets or positions in a league table. Measures and scales of compassion can readily be found in the literature (Lown, Muncer and Chadwick, 2015; Strauss *et al.*, 2016; Sinclair *et al.*, 2017) although others question the ethics, worth and value of metrics (Bradshaw, 2009; Smajdor, 2013). Focussing on measuring and quantification places an emphasis on less human ideals such as throughput and marketisation in an NHS which is fundamentally under-resourced and furthermore undervalues those ideals more associated with compassion and care. My methodology was

determined by the questions forming in my mind around how the individuals I met made sense of their experiences and how I in turn might interpret these, suggesting a qualitative approach to my research. I was also concerned with the practical application of the findings which suggested at first a pragmatist paradigm which asks "what works" (Peirce, 1905; Mead, 1934; Morgan, 2014), however, during my career I witnessed the idiosyncratic nature of responses and reactions of patients and practitioners to apparently similar events during medical imaging procedures. This led me to take a research position which saw the individual in the fuller context of social interactions, processes and influences, and the interpretations and meanings thus made. The internal subjective and cognitive processes of the mind are not easily or readily accessible and can only be inferred quantitatively from measurements of behaviours or physiological activity such as eye movements, electro-encephalography and cardiography, whereas qualitative methods appeal directly to the person in all their complexity.

1.9.1 Justification for using a qualitative approach

The radiography research base is growing and developing and the future of the profession hinges on evidence-based, patient-focussed education and practice (SCoR, 2016). A reader scrutinising the contents page of any copy of 'Radiography' might think at first that the highly technical nature of medical imaging procedures justifies the predominance of quantitative research into objective measures of such issues as dose optimisation and image quality. However, the practice of radiography is not simply technical and procedural and research using a variety of methods is needed to investigate other aspects including leadership, management, education, professional development and the multifaceted intricacies of human social interaction. Kvale's notion of qualitative research as travel (Kvale, 1996) provides a helpful metaphor of the qualitative researcher as explorer who, in contrast with the positivist miner who digs up and objectively examines pre-existing facts and figures, instead interprets and constructs their account of the data from encounters with their participants. There is no suggestion that one is somehow better than the other, merely that answering research questions depends on their nature; do they ask why, seek cause and effect relationships or do they seek to understand, interpret and make sense of world. As a traveller, answering the research question required that I listen to patients and students as they constructed accounts of their experiences and further that I explore radiographers' online discussions in order to understand and compare their stories, perceptions, attitudes and beliefs. In so doing I would be able to create a conceptual model of compassion bespoke to diagnostic imaging.

I have chosen to use a terminology consistent with a constructivist approach; realist and essentialist researchers write of data collection on the assumption that they are already there, waiting to be harvested uncontaminated, i.e. as 'raw' data. For constructionist and constructivist researchers, data are latent; in the minds of participants and researcher (Lincoln, 2013) so I have chosen to use the term data assembly to better reflect the creative and interpretative nature of qualitative research.

1.10 Reflexivity and writing in the first-person

Reflective practice and reflexivity are integral to both radiographic and academic practice (Gibbs, 1988; Moon, 2004) and in acknowledging my own perspective in this project, my thesis assimilates my roles as researcher, educator and past practitioner throughout; incorporating the attitudes and beliefs shaped by the personal, professional, clinical and academic interactions which I bring to the analysis. Strauss and Corbin emphasise:

"the ability of the researcher to recognise what is important, give it meaning and conceptualise the observations" (Strauss and Corbin, 1990).

My abilities in this respect are based on skills acquired from a length and breadth of clinical, technical, academic and personal experience of undergoing projection imaging as a patient myself. I have also accompanied family members on visits to ED and x-ray. I believe that this variety of experiences helped me when analysing my data, in particular when trying to understand compassion as viewed from the differing perspectives of patients, students and radiographers. I have also developed the ability to reflect on my role as educator and researcher, and have a deep understanding derived from over thirty years of engagement with clinical radiographic practice. Whilst this might be construed as a predisposition to view the data in a way which suits my proclivities, Pope and Mays propose that

disclosing personal and known influences prior to presentation of the thesis strengthens rather than weakens its credibility by allowing the reader to judge these in the context of the results (Pope and Mays, 2006). Furthermore, foregrounding both researcher and participants in this thesis harmonises with the constructivist paradigm within which my research was conducted; they are active constructors of the data and its analysis, rather than passive recipients of some action upon them. Here, I agree with Carter (2016) when she suggests that the "textual masking of agency" which occurs when writing in the passive risks the disappearance of both writer's and research participants' voices (Carter, 2016). Foster and Parker suggest one way of acknowledging the creative and active nature of an account of a piece of research is to write it in the first person (Foster & Parker 1995; in Braun & Clarke 2006b) and I have therefore made this choice. conscious of the need for my role as researcher to be unambiguous. This should enable the reader to locate me the researcher overtly in the work rather than trying to find her hiding behind a third-person cloak of objectivity and so make informed judgements about its quality. My research position further justifies this choice; social constructivists maintain that conclusions are reached by a process of examining sometimes conflicting reports from differing sources, including the researcher's own, and exploring their relationships (Berger and Luckman, 1967). Data, even when acquired in the positivist tradition do not 'speak for themselves'; it is the researcher who, in assembling and analysing them and reaching conclusions speaks through them. It would be disingenuous to pretend that this work is not personal; it is profoundly so, and I became involved with it from the moment I chose the topic, but that does not automatically compromise the quality of the research; criteria for which are discussed in Chapter 3.

1.11 My personal beliefs and values and their relationship with this study

My personal values include kindness, integrity, fairness and justice, diligence and perseverance, authenticity and a curiosity and interest in the world as identified using the Values In Action Survey of Character Strengths (VIA CSV) (Peterson and Seligman, 2004) and I have drawn on these as I progressed through this research project and thesis. As far as I can remember, the term compassion was

not in common parlance during my training in the late 1970s, and in my subsequent clinical practice I cannot recall it being articulated nor any discussions as to its meaning and manifestation; hence the spiking of my curiosity upon reading the Francis Report. Throughout my career as a radiographer, however, I have always sensed the tensions inherent in caring for my patients. Rarely were these voiced however, dominated as they were by the demands of the service: time and resource-pressured as it has always been, as well as the needs of colleagues for support and of course the patients who always have been, despite recent rhetoric at the centre of caring for the vast majority of radiographers and other health care professionals I have encountered over the last forty years. This PhD was conceived when, between 2008 and 2013, as lecturer in Medical Imaging at Exeter University, I designed and delivered a module entitled 'Foundations of Patient Care' to first-year undergraduate radiographers. During the same period and using a grant awarded by the Higher Education Academy, I undertook a psychology mini-project which investigated patients' experiences during diagnostic imaging. Thematic analysis elicited such elements as communication, empathy and competence which were sometimes excellent but at others left much to be desired. A set of evidence-based teaching videos were produced and are currently in use. Towards the end of this period, failures of care at the Mid-Staffordshire NHS Trust which had first come to light in 2010 were detailed in the Francis Report (Francis, 2013a). On reading it I was shocked yet unsurprised by the issues raised at the Mid-Staffordshire inquiry and have a firsthand understanding of how they could have come about. I have both witnessed and felt the stress and burnout associated with working for a sustained period under sometimes intense and unremitting pressure and know something of how compassion fatigue (Figley, 1983) feels; it is a distressing emotion and an important component of my motivation in undertaking this research.

To summarise, my personal beliefs and values which are relevant to this study provoke:

 A desire: to understand the meaning of compassion in the context of Di in order to optimise patients' experiences whilst undergoing medical imaging procedures;

- A wish: to help student radiographers develop the skills and abilities that will help them care with compassion both for their patients and themselves;
- An aspiration: to pass on to radiographers the findings from this study in order that they might better understand their role and the place of compassion within it.

1.12 Outline of chapters

The remainder of the thesis is organised in the following chapters:

- **Chapter 2** Consists of a review of the literature, discussing and exploring the definition of compassion and current and relevant debates with regard to compassion in DI and wider healthcare.
- Chapter 3 Lays out the theoretical underpinnings of my research methodology as well as its ontological and epistemological roots. The chapter includes the ethical considerations specific to my study and details of data treatment and analysis. It also explores the debates around appraising quality in qualitative research and outlines the criteria by which this particular research was evaluated.
- Chapter 4 A short chapter consisting of an introduction to the results chapters which are arranged according to the themes developed from the analysis. These themes are described in individual chapters.
- **Chapter 5** Theme 1: The appearances of compassion during the diagnostic imaging procedure.
- **Chapter 6** Theme 2: Underlying qualities, skills and abilities that constitute compassion
- **Chapter 7** Theme 3: Universal principles elemental in compassion.
- **Chapter 8** Summary and a discussion of the findings. Reflections on the strengths and weaknesses of my research, with recommendations

for further and future research and final reflections on the research process and my place within it.

Chapter 9 Conclusion and recommendations.

1.13 Chapter summary

This chapter has provided the necessary background to, and rationale for this research, enabling the reader to set both the study and researcher in context. It has also outlined the structure of the thesis. In the next chapter a review of the literature will include the search protocol, discussion of the definition of compassion and an exploration of current debates around this and associated concepts.

Chapter 2: Literature review

2.1 Introduction

The purpose of this chapter is to provide a review of what was already known about compassion in radiography and the wider literatures, identify the gap that would inform my research question and together with the rationale seen in Chapter 1, provide the warrant for my project. A constructivist paradigm allows preparation of the ground without pre-empting the data in order to inform the design of the interview and focus groups schedules whilst maintaining an open and enquiring mind.

The chapter begins with details of the search protocol followed by an exploration of the etymological and philosophical roots of the term compassion. The review of the literature revealed that whilst the term is widely used, so too are other terms, intended either to approximate to, or augment it; three of the terms most closely associated with definitions of compassion are discussed in more depth. A discussion follows of the context in which compassion is to be explored in this thesis; specifically diagnostic medical imaging, and this is set into the wider context of its place in health policy and protocol pre- and post-Francis Report. Barriers and facilitators to the delivery of compassionate care including those unique to DI are examined. I felt it was particularly important to illuminate the key debates in the literature around compassionate care as the Francis Report was emphatic in its conclusion that there should be a greater emphasis on compassionate patient care in practice; the subsequent bandwagon of policy and protocol documents onto which government departments and professional bodies jumped left no room for these debates to take place. It was interesting to note the paucity of research into compassion in the radiography literature relative to research in the nursing and other literatures and it is this gap to which I aim to contribute. Accessing and reviewing the literature was continuous throughout the study and the literature review reflects this.

2.2 Search protocol

Literature searching began in 2014 and continued throughout the project, with search terms and criteria informed by the findings of the study. The review of the literature up to 2016 was published in *Radiography* (Bleiker *et al.*, 2016). Although the review performed did not meet all the criteria for a systematic review, nevertheless it was based on a systematic methodology known as PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) (Moher *et al.*, 2009).

The aim of the literature review was, in the first instance, to discover where the term 'compassion' together with its variant word endings was appearing in existing discourse. The term is used in a variety of contexts, not just healthcare and I wanted to gain as wide an understanding as possible as to where it might or might not be percolating into the conscious awareness of my future participants. A pragmatic and inclusive approach to searching the literature was therefore taken; the reasons for this were two-fold. First, the ubiquity of the term compassion in healthcare parlance and second, the desire to cover a wide range of publications, including policy and professional documents and discussion papers in addition to the research literature. The search was limited to published and unpublished works in English in order to minimise without eliminating entirely ethno-cultural differences in perceptions of what the term might mean. It was also limited to articles published between 1978 and 2015, being the period which spanned my career from qualification with the Diploma of the College of Radiographers to the time of writing the literature review. Spiritual and religious writings were not reviewed in order to narrow the focus to the literatures most relevant to this study, consequently the principal sources searched included radiography; nursing; medicine; medical humanities and ethics; education; health services research and policy; the psychology, including wellbeing or positive psychology, counselling and psychotherapy literatures and philosophical writings. It soon became clear that there is an abundance of literature around the topic of compassion; however, an understanding of the term 'Compassionate Use Protocol' facilitated the elimination of a substantial subsection of articles. This term refers to the prescription of untested drugs outside clinical trials to patients with life-threatening or life-shortening conditions and is also known as a Named Patient Programme (European Medicines Agency, 2007). Figure 2 outlines the search strategy:

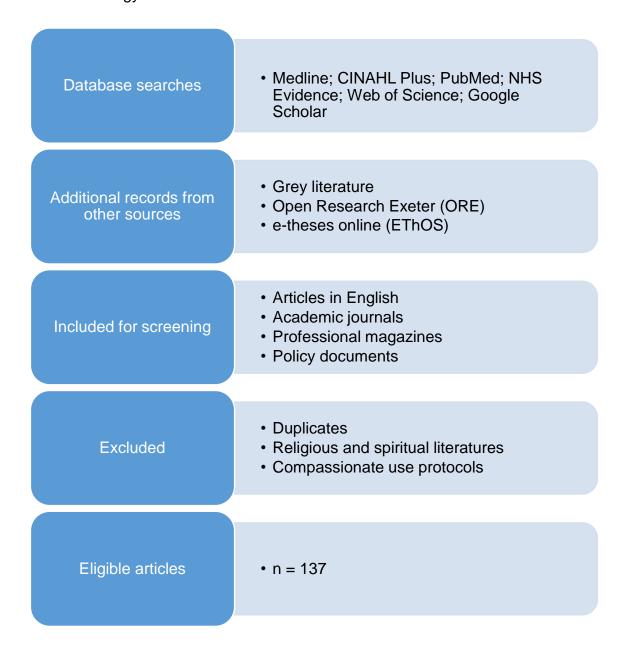


Figure 2: Search strategy based on the PRISMA systematic search method (Moher et al., 2009)

Medline, CINAHL Plus, PubMed, NHS Evidence, Web of Science, Google Scholar and the grey literature were the principal databases searched, and whilst the search fields covered all text, selection of articles was based on either or both of the terms appearing in the title and abstract only in order to gain a broad overview of how and where the term compassion is appearing in the literature and ascertain the contexts in which the term compassion was seen, clarify its

meaning and illuminate the key debates in the area. The truncation radiograph* was used in an attempt to narrow the search to radiography, with the exception of Google Scholar which does not recognise truncation symbols; instead quotation marks were used around the search terms. The main indexing terms with appropriate truncation and combinations for this initial search were compassion* AND radiograph* and whilst some databases returned a large number of results, where none were returned the term compassion* only was used. A search using the terms compassion* AND radiograph* OR medical imaging produced 6,480 results. However, included in these results were papers from literatures including those from such professions as dentistry, paediatric, forensic and veterinary medicine in addition to the Compassionate Use Protocol research mentioned previously, which I deemed not relevant to my research question. A more comprehensive review of the radiotherapy literature might have heightened my understanding of the radiographer-patient relationship in the mechanistic environment outside of DI and the differences in concerns between patients undergoing treatment of, rather than diagnosis of, cancers and other conditions requiring radiation therapy. In addition to keyword searching, articles were identified from examining the reference lists of salient papers. Table 1 shows the returns from a search of the main databases chosen.

Database	Returned	Extracted
Cinahl Plus (EBSCO)	16	1
PubMed	49	2
Google Scholar (search terms "compassion" "radiographer")	400	162
NHS Evidence	126	1
Web of Science	32	1
OpenGrey (compassion only)	118	2
Index to Theses	447	0
ORE (Exeter)	13	2

Table 1: Returns from the eight databases chosen

Whilst there is a plethora of compassion research in the nursing literature, in radiography it is much more limited: a search of the principal professional journal for UK radiographers, *Radiography* revealed 15 publications, with three articles deemed relevant. Table 2 shows the outcome of a search of the principal radiography and medical imaging journals using the same search terms.

Journal	Returned	Extracted	Notes
Radiography	15	3	
Jnl Medical Imaging and Radiation Science (Radiotherapy)	11	3	Compassion only
European Journal of Radiography	0	-	
Imaging & Therapy Practice	14	2	
Jnl of Medical Radiation Sciences	0	-	58 for 'care' 3 extracted
Clinical Imaging	0	-	
Radiologic Technology	1	1	
Computerized Medical Imaging and Graphics	1	0	Previously Computerized Radiology
Journal of Diagnostic Radiography and Imaging	2	1	Ceased publication 2006

Table 2: Returns from searches of the main radiography journals

137 items were selected for critical review. Of these, 82 were journal articles, 19 were opinion pieces, position papers or review articles, 7 policy documents and 29 books or websites. Other sources included opinion pieces, blogs and books. Selection of items for the review was first based on titles and, where available, abstracts. Full copies were then retrieved and read, then saved in a reference

manager (Mendeley) and cross-referenced under headings I entitled according to what I felt best encapsulated the subject matter. These headings became the foundation for the topics in the subsections under which the literature review is presented. The term compassion tends to be used interchangeably with related concepts, e.g. care, and surveying the nursing and related health literatures led me initially to take a pragmatic approach and a broad exploration of a range of topics. In the radiography literature I selected articles which I judged might be of relevance to compassion, for example research into Emotional Intelligence (Mackay et al., 2013), communication skills (Booth and Manning, 2006; Booth, 2007) and care (Bolderston, Lewis and Chai, 2010; Strudwick, Mackay and Hicks, 2011; Reeves, 2018). From the nursing literature I was able to locate more specific conceptualisations of compassion (e.g. Schantz, 2007; Dewar, 2011; Dewar and Cook, 2014) and beyond that the wider healthcare, medical ethics and humanities literatures (Nussbaum, 1996; Smajdor, 2013; Bleakley, 2014; Haslam, 2015; Sinclair, McClement, et al., 2016). The approach also included policy reports, news and opinion commentaries in order to ascertain the key debates relevant to the concept of compassion. As well as relevance, selection of articles was informed by an appraisal of quality using guidance from the Critical Appraisal Skills Programme (CASP) tool (Taylor et al., 2004); this facilitated further exclusions of articles which fell short of the CASP criteria.

The initial exploratory approach taken in the literature review aimed to investigate existing ideas and concepts around compassion in relation to DI and the wider, principally nursing and medical literatures. I was also able to explore the methodologies and methods used in other studies. Strategies for keeping up to date with relevant literature over the course of the research included setting up alerts and notifications from journals deemed key to the research question. Alerts were also created on Mendeley, ResearchGate and Google Scholar. These enabled me to stay abreast of recent developments and publications in the field. I conducted further database searches during data analysis and theme construction to ensure that the literature continuously underpinned the thesis. Conference networking provided a further opportunity to learn more about the work of researchers working on projects that bore similarities or were adjacent to my own. Finally, I discovered that accepting invitations to review articles

submitted principally to *Radiography* was a way of confirming that I was maintaining currency in and around my field and, very occasionally of coming across something new.

The process of reaching an understanding of the concept of compassion began with seeking a definition by tracing its philosophical and etymological roots. In the next section, exploration of the etymology of compassion reveals the origins of present-day definitions of compassion; these are then contextualised to health care, policy and protocol and to radiography.

2.3 Compassion: origins, etymology, definition

Compassion has been debated since antiquity in both Western and Eastern philosophy and religion, although the meaning of the term has been widely contested, with early definitions tending to describe related terms such as this description from Aristotle in Rhetoric, Book 2, Ch. VIII:

"a feeling of pain at an apparent evil, destructive or painful, which befalls one who doesn't deserve it and which we might expect to befall ourselves or some friend of ours, and moreover befall us soon" (Aristotle, 1984)

Some argue that Aristotle was in fact describing pity in this definition but in many philosophical circles it has come to be accepted as his definition of compassion. From at least the 10th century AD, Western definitions of compassion related to the sufferings of Christ on the cross; this extended to sufferings of martyrs and suffering more generally until the 12th century when Late Latin definitions included the notion of 'suffering with' (Harper, 2001). Eastern philosophy and religion also see suffering as fundamental to any definition of compassion, together with a heartfelt wish for others to be free of it (Dalai Lama and Cutler, 1999). Nussbaum describes compassion as "a central bridge between the individual and the community" (Nussbaum, 1996, p28), reinforcing the idea of 'suffering with'. More modern dictionary definitions incorporated terms such as "participation in suffering; fellow-feeling, sympathy" (OED online) and so a picture builds of compassion as compelling feelings towards another's suffering, feelings of

discomfort through a process of identifying with them, and a positive desire to act in order to relieve suffering (Snyder and Lopez, 2005, p441).

2.3.1 Defining and conceptualising compassion in healthcare and radiography

From a broadly agreed generalised definition, I next sought to explore definitions of compassion in the context of healthcare and radiography in particular. The language of compassion in healthcare organisations seems to be in terms of a range of associated concepts, for example the NICE Quality Standards for Patient Experience include the terms dignity, kindness, compassion, courtesy, respect, understanding and honesty (NICE 2012). The NHS describes compassion as one of its core values thus:

"Compassionate care ties closely with respect and dignity in that individual patients, carers and relatives must be treated with sensitivity and kindness. The business of the NHS extends beyond providing clinical care and includes alleviating pain, distress, and making people feel valued and that their concerns are important." (NHS England, 2015)

There is, however, no specification as to the meaning of these terms, nor how their expression is perceived. The NHS Constitution arguably gives one of the more detailed descriptions of compassion, as one of its six core values it is described thus:

"We ensure that compassion is central to the care we provide and respond with humanity and kindness to each person's pain, distress, anxiety or need. We search for the things we can do, however small, to give comfort and relieve suffering. We find time for patients, their families and carers, as well as those we work alongside. We do not wait to be asked, because we care." (DoH, 2013b).

The nursing literature was the largest repository of research into compassion in healthcare; just under 95,000 articles were returned from an initial search of Google Scholar using the search terms "compassion" and "nursing". Topics distilled included: rehearsing and reciting policy and protocol as described in the responses in section 1.2; others are closer to discussion and opinion-pieces (e.g. Straughair, 2012; Haslam, 2015). Other topics draw on, or generate evidence-

based definitions (e.g. Goetz, Keltner and Simon-Thomas, 2010) and issues addressed include emotional components, in particular compassion satisfaction and fatigue; associated terms; measuring and testing for compassion; education and training in compassion; also moral and ethical dimensions of compassion in professional practice. I deemed these relevant to radiography as well as nursing as they are matters that affect clinical practice in both professions, hence their inclusion in the review. A deeper and more extensive exploration of the nursing literature might have revealed more about the nurse-patient relationship with regard to compassion and what motivates and drives compassionate feelings and behaviours of nurses towards their patients. The nature of the tasks involved in caring for patients is another area of the nursing literature which might have merited further exploration, given the especially technical and mechanistic characteristics of the task of imaging patients in DI. Further, whilst I had assembled literatures exploring the patient experience in healthcare, I missed those exploring their attitudes and opinions with regard to their care; this might have provided useful information regarding patients' expectations and needs. This may have informed the interview schedule, although the interview questions were trialled prior to data acquisition and this issue was not raised in the feedback. Another group whose perspectives I did not include in either the literature review nor as research participants were carers and relatives of patients. Their perspective as involved observers would have added another dimension to the review and could be an interesting avenue to pursue in future research. Conceptualisation is perhaps a more meaningful way of envisaging or constructing a mental representation of compassion, with a popular and widely used method in healthcare research being Walker and Avant's concept analysis. Founded in the philosophy of realism and claimed to be useful when a concept is unclear, outmoded or unhelpful (Walker et al., 2005), the method has been criticised for its lack of flexibility, and that for it to be suitably rigorous, only a systematic review of the literature would suffice (Rodgers and Knafl, 2000). Despite the criticisms, the framework is still widely used in healthcare research, perhaps due to its origins in the field of nursing research. Of three studies which conceptualised compassion using Walker and Avant's method two found in the nursing literature saw compassion in terms of moral dimensions and virtues (Schantz, 2007; Burnell, 2009); the other in radiotherapy identified key components which lay largely in line with definitions summarised in the previous section (Taylor *et al.*, 2017). Of interest in Taylor *et al*'s conceptualisation was non-judgmentalism as one of the key words associated with the concept of compassion, yet it did not appear in the antecedents and consequences of the five attributes of compassion identified in their analysis. The notion of judgments of undeserved suffering also appears to have been lost in other descriptions and definitions of compassion in healthcare more generally. The philosopher Martha Nussbaum deduces from her understanding of Aristotle that with regard to compassion:

"When we think that a person brought a bad situation on himself, this thought would appear to inhibit formation of the emotion" (Nussbaum, 2014).

Here, Nussbaum presents compassion as a feeling or emotional state, with judgment a necessary component in order that compassion be enacted; others argue for compassion as a trait or innate personality characteristic whilst those principally but not exclusively within nursing emphasise the moral and virtuous nature of compassionate individuals; this is discussed further in section 2.4.

Key messages from this section:

- This section has explored early definitions and the philosophical roots of compassion;
- Ideas around compassion include feelings of sorrow or concern for another's welfare and a desire to take action to relieve suffering;
- The judgmental component of undeserved suffering has been lost in many definitions of compassion;
- Conceptualising compassion and uncovering its meaning in diagnostic imaging would enable radiographers to understand and put into practice the abstract concepts used to define it in healthcare policy.

To summarise, compassion definitions include perceptions of suffering, feelings of sorrow and a desire to take action. Judgments of deserving of compassionate feelings have largely been lost from more recent definitions. In healthcare,

compassion is associated with a range of terms such as empathy, care, respect and dignity however other than alleviating pain or distress, giving comfort and making time there is little in the way of practical guidance. Policy and protocol are the sources from which guidance for professional practice is constructed and an understanding of these is necessary for my study to progress.

2.4 Political and contextual issues and debates around compassion

The literature review revealed a range of issues around defining and conceptualising compassion in radiography and healthcare more widely. This section considers broader ideological and contextual concerns and debates sparked by responses to the Francis Report.

2.4.1 Quantifying compassion

Responses from government in the immediate aftermath of publication of the Francis Report were presented in Chapter 1 as part of the context and background to the research. Characteristic of the priorities of politicians and policy-makers looking for swift and visible means of effecting change, measures and assessments of individual professionals' compassion predominated (DoH, 2013a) and underpinned political ideas around incentivising compassion (Campbell, 2013). Various quantitative evaluations were developed and tested with claims of success but which are methodologically flawed; for example those in which compassion is inferred from patients' agreement with a series of items deemed as correlates of compassion (e.g. Burnell and Agan, 2013; Lown, Muncer and Chadwick, 2015). Whilst some elements seen in these studies such as 'controlling pain' and 'giving timely treatments' might be more consistently evaluated, less likely so are others such as 'inner beauty' and 'appearing competent'. Self-report scales were used in a number of studies but suffer from a failure to clarify compassion; for example, in the Compassionate Love Scale (Sprecher and Fehr, 2005), the term compassion is used interchangeably with concepts such as empathy and altruism. Readers therefore cannot be assured of the reliability and validity of these studies' findings. Other studies which rely on self-reporting of behaviours intended to be interpreted as compassionate will inevitably suffer from inherent biases such as social desirability (Edwards, 1957), the intention-behaviour gap (Gross, 1987), and social learning and group pressures (Asch, 1956; Bandura, 1971). Finally, measures which only take into account external expressions or perceptions of perceived compassion fail to address the issue of authenticity and heartfelt caring, potentially reducing compassion to mechanical, automotive and impersonal acts or behaviours. Well before the Mid-Staffordshire and Francis Report episodes, the UK government had attempted to introduce a scheme for measuring and incentivising compassion in response to perceptions of the nursing profession as losing its Judeo-Christian underpinning of compassion and care as vocational, purposeful and meaningful (Bradshaw, 2009). Bradshaw noted that even then, the flaws in this idea were obvious; commenting on the 'McDonaldisation' of care, in which giving care consists of following a set of instructions without thought or feeling. Smajdor summarises Bradshaw thus:

"It is inherently false to measure, systematise and reward compassion in this way. If we focus on actions or outcomes without the feeling, we are creating what she [Bradshaw] regards as a trite McDonalds type of compassion, a travesty of the real thing" (Bradshaw, 2009 in Smajdor, 2013, p9).

A final critique of the quantification of compassion comes from a systematic review of measures (Sinclair *et al.*, 2017) in which no single universally agreed way of measuring compassion was identified, despite reviewing a wide range of instruments.

2.4.2 Individualising compassion

Despite the flawed approach to the Francis report recommendations just described, compassion as an individual attribute remained the focus and priority of government and professional bodies. From the perspective of patients, individualising compassion such that each patient perceives their care as compassionate is encapsulated by the shift in the focus on the patient's disease or illness towards the person as a whole. The medical model of the 19th century (Gainty, 2019) combined with an allegation of the medicalisation of health (Illich, 1976) led to a disease- or illness-orientated dehumanising view of care in which patients were reduced to their illness or afflicted body part. This has since

gradually been replaced by a more holistic model (Engel, 1997) in which psychological and social elements are considered as well as the biological ones, and the patient as a whole person is placed at the centre of their care. Seen for example in key reports referring to patient-centred care (Goodrich and Cornwell, 2008), the concept was in fact introduced much earlier (Balint, 1969) and has been discussed and debated in the medical humanities literatures (Frampton, Guastello and Lepore, 2013; Bleakley, 2014) and its complexity explored in radiography (Murphy, 2006; Hayre, Blackman and Eyden, 2016; Reeves, 2018). Whilst there is general agreement amongst these writers that a more holistic and humanised approach to caring for patients as unique human beings should lead to improved experiences of their care, practical and technical considerations and limited resources both in radiography and healthcare more generally hinder the provision of individualised and compassionate patient-centred care.

Compassion as an individual characteristic has been explored in terms of its physical location in the brain (e.g. Weng et al., 2013) i.e. as a biological feature of personality. In the wellbeing literature a compassionate personality is described in terms of psychological character strengths, which are positive individual traits grouped by six core virtues: wisdom, courage, humanity, justice, temperance and transcendence (Peterson and Seligman, 2004). According to these authors compassion is a key feature of the character strength of kindness, the core virtue of which is Humanity (p326). There was no literature found exploring character strengths and virtues in radiographers. Further exploration of compassion in individuals can be seen in philosophy where debates include compassion as reasoned or rational response to another's suffering (Snow, 1991; Nussbaum, 1996; Wong, 2015), and whether it is an emotion or a virtue. Compassion as a virtue has been traditionally assumed in the nursing literature (Von Dietze and Orb, 2000; Van Der Cingel, 2009; Straughair, 2012a, 2012b) where a vocational 'calling' to the profession has been described. Viewing one's work as akin to a calling, i.e. as a source of fulfilment that is socially useful and personally meaningful, rather than for financial reward or career advancement has been reported by radiographers (Hutton et al., 2014) suggesting that radiographers may enter the profession for reasons similar if not identical to nurses. To summarise, the literature with regard to individual compassion has

charted the reorientation from the disease to the person and has explored its position within individual practitioners. Placing to one side the assumptions made in policy and protocol as to the primacy of the individual, the location of compassion in social and professional groups and communities or the NHS as a whole is far less well represented in the literatures. Principally it tends to be found in position and research papers exploring past and present failures and shortcomings, the conclusion sections of which contain suggestions and recommendations that compassion in the wider organisational, cultural and even ideological systems should be considered as well as in the individual.

The interpretation of the Francis Report recommendation that there was an increased need for individual compassion and that compassion is an intrinsically good and necessary component of a good healthcare professional are discussed in the next section. In it, the notion that compassion is necessarily associated with the moral and ethical goodness fundamental to patient care is challenged.

2.4.3 Is compassion an absolute prerequisite in good patient care?

Few would argue with the common-sense notion that compassion is desirable, even fundamental in healthcare and as seen in Chapter 1 there was little in the way of disagreement with the recommendation for an increased focus on compassion in the responses to the Francis report, including that of the SoR. However, in the medical ethics literature the response was rather more considered; Smajdor asked whether it might possible to find good patient care in the absence of compassion, and if so, is it compassion however defined or conceptualised that is needed, or some other ethical 'good' such as empathy or kindness:

"suppose if we knew for sure that compassion had NOT been present in a particular health trust over a certain period, during which all patients and their relatives pronounced themselves satisfied with the care provided, and all safety requirements had been met – would we be pushing for additional measures to promote and incentivise compassion? If not, this shows us that compassion is not functioning purely as an intrinsic good or absolute moral goal here: we are valuing it at least in part, because we believe that it is associated with other goods" (Smajdor, 2015).

The lack of a conceptualisation of compassion in radiography means that not only is it impossible to know whether compassion is essential in every radiographerpatient encounter, it is also unclear how to proceed with the Francis Report recommendation for an increase in its focus. Issues explored so far include whether any compassion noticed by patients is a genuine and perhaps spontaneous expression of caring or a behaviour independent of any associated emotion that benefits the patient and possibly also the radiographer. Although there are connotations of insincerity, a theoretical explanation can be provided by Dramaturgy, which is a theory of social interactions in which expressions given (verbally), and given off (non-verbally) by one individual create an impression in another (Goffman, 1959; see also the seminal work in radiography of Murphy, 2009). Goffman uses the metaphor of theatre to present his ideas, in which actors play roles (here, the roles are 'radiographer', 'student' and 'patient') using their attitudes, beliefs and expectations of what each involve. Individuals are then able to make sense of their situation, in this case the 'drama' of the diagnostic imaging encounter. In diagnostic radiography the stage on which the performance of the imaging examination is set is principally the x-ray room, and to a lesser extent the waiting room; where the roles of radiographer, student and patient are played and there are front-of-house and backstage areas corresponding with x-ray and staff rooms respectively. Front-of-house is where roles of radiographer and patient are played, backstage is where radiographers can allow any mask or pretence that does not accord with the role to slip away, out of sight and earshot of the patient. The issue of radiographers acting out behaviours perceived as compassionate by patients leads to a further question of whether such behaviours arise spontaneously and instinctively, or whether they can be in some way instilled or learned; this is explored in the next section.

2.4.4 Can compassion be taught?

The Francis report recommendations pertaining to an increased emphasis on compassion in health education curricula referred to "a culture of compassion" and there was no specific detail with regard to teaching compassion, although reference was made to compassion training together with a requirement that this be evidenced and demonstrable. Compassion training programmes seen in the nursing literature included the use of augmented reality and simulation exercises

with claims of success in terms of increased authenticity (Brailsford, Clark and Gissing, 2013). These claims however were based on nursing students' evaluations of the method against a didactic lecture format, so despite students interacting with patients through a hand-held computer screen, it is perhaps not surprising that a favourable comparison with lecture theatre teaching was made. The effectiveness of this method was not evaluated, nor patients' views sought. In the medical education literature a systematic documentation of physician behaviours facilitated development of a taxonomy of compassionate behaviours (Cameron et al., 2015); although the study only analysed audio transcripts, so no visual cues could be observed. The study was confined to the highly emotionally charged environment of patients with advanced cancer where a display of compassion could reasonably be expected, so it is possible that more subtle signs of compassion which might be seen when distress is milder were missed. Nevertheless there might be an inference from those wishing to evidence successful compassion training that a checklist of behaviours could perhaps be compiled similar in ilk to the competency checklists used in radiography for technical skills training. Bleakley however, argues that the use of simulated settings reduces teaching to a tick-box exercise by standardising the patientpractitioner interaction and limiting the context to hypothetical scenarios. (Bleakley, 2014). Bleakley further suggests that the subtle complexity of such elements as compassion are irreducible to competencies, although he does not suggest that these cannot or should not be taught at all; advocating in preference a process of reflection in small groups on real patient-practitioner interactions. Nursing and wider healthcare research lend support to this argument (Adamson and Dewar, 2015; Sinclair, Torres, et al., 2016), although none was found in radiography. Mindfulness-based meditative techniques in compassion training are popular, see for example programmes such as those from the Stanford University Center for Compassion and Altruism Research and Education (CCARE, 2019). Psychophysiological (fMRI) studies also suggest that compassion can be cultivated by training in mindfulness (Weng et al., 2013) but whether this is sustainable is less well documented. In radiography, research is underway into how mindfulness can help students develop abilities in emotion management; an association having been established between this and compassion (de Witt, 2017). However there were no studies found exploring a more direct link between mindfulness and compassion as a pedagogical tool in radiography. With regard to the emotional and feeling qualities of compassion, Cassell speculates that it might be possible to create the conditions for the evocation of a compassionate emotional response, perhaps by asking students to consider why a sufferer might deserve sympathy, pity or compassion, but he argues that that the emotion itself is beyond conscious control (Cassell, 2005 p442). Whether the emotional component of compassion can be taught is also a moot point, nevertheless it might be possible for radiographers and others to be taught communication skills associated with compassion: Kurtz *et al* argue that they can, and their Calgary-Cambridge method is well received in medical education (Kurtz *et al.*, 2003).

This review has so far explored classroom training in behaviours associated with compassion and cultivating compassionate feelings or emotions. The other location in which students learn about the role and craft of radiography is on clinical placement. In radiography, no research has yet been conducted specifically into how and where compassion features in placement learning. The seminal works of Emma Hyde and colleagues have explored the transition that students face from classroom to placement learning and their research posits specific challenges faced by students adjusting to the culture of hospital life. Although their research was directed towards reducing attrition and improving student satisfaction, there was a recognition seen elsewhere in the radiography literature that compassion was a casualty, rather than product of the socialisation process into healthcare practice (Hyde, 2015, 2016; Hyde and Strudwick, 2017). This is neither new, nor unique to radiography and the phenomenon has been noted in medicine and nursing (see for example Hojat et al., 2009; Coetzee and Klopper, 2010; Neumann et al., 2011). Hyde et al's research reflects a widely recognised phenomenon that students returning from placement notice the stark and sometimes shocking differences between what they were taught in the classroom and what they learned in clinical practice. In her doctoral thesis, Jane Harvey-Lloyd reported that students became inured to the situations and events initially found shocking and, through a process of becoming, absorbed and adjusted to the culture of the imaging department (Harvey-Lloyd, 2018). A theoretical explanation for this might be found in Hafferty and Franks' notion of the hidden curriculum; a term describing the socialisation of students into a hospital culture contrasted with the explicit teaching of a formal curriculum (Hafferty and Franks, 1994). Placement learning consists of exposure to radiographers' values and attitudes as well as acquisition of the more familiar technical and interpersonal skills and knowledge; this is achieved through combined processes of participation in a community of practitioners, role modelling, and vicarious learning (Bandura, 1971; Lave and Wenger, 1991; Bleakley, 2002). Hafferty and Franks argue that implicit or unofficial messages emanating from the culture of the department are internalised by students, producing unintended learning outcomes. Although originally referring to the broader teaching and learning of ethics in the medical curriculum, their argument incorporates compassion and caring (p863) and arguably applies equally to radiography and indeed any healthcare profession. Hafferty and Franks suggest that within the hidden curriculum lies the jarring between the ideals of the classroom and realities of placement learning; this may account for the decline in empathy or compassion noted previously over the course of health professions training. They further argue that society and medical culture require that health workers think and feel differently to patients and the public about the experiences associated with hospitals and medicine. Consequently placement learning involves a student making the transition from lay person to professional (p865), to the extent that they acquire a different identity and character; the 'becoming' of a radiographer described by Harvey-Lloyd. It is important to note that the hidden curriculum is not delivered solely by the actors in the social group - in this case radiographers - into which students are socialised. A workplace culture includes the organisation, priorities of which include increased throughput and reduced waiting times which may be at odds with its purported values of patientcentred care.

From a consideration of these issues, debates around compassion in radiography can be summarised thus:

 Post-Francis policy and protocol emphasised a focus on promoting and incentivising compassionate individuals;

- There has been little discussion, other than in the medical ethics literatures as to whether compassion is a necessary component of every patientpractitioner encounter;
- The recommendation for an increased focus on compassion in recruitment, education and training fails to differentiate between expressed and felt compassion, nor between these and compassion as perceived by patients. It also does not address any differences between classroom and placement learning. Hence the question of whether compassion can be taught remains unanswered.

Having highlighted the key debates relevant to my research question, it was apparent that some of the issues raised spanned professional boundaries. Answering the research question would therefore provide useful information that might be transferrable to other healthcare professions; a key methodological aim which is discussed further in Chapter 3. Other issues are specific to radiography both as a profession and to the patient experience in a diagnostic imaging encounter. In order to disentangle these, the next section highlights and explores those features which are unique to DI.

2.5 Features unique to DI not common to other health professions

The Agenda for Change initiative of 2004 which aimed to provide parity of pay across the allied health professions relied for its implementation on the standardisation of competencies, knowledge, skills and responsibilities (DoH, 2004). However other differences remain between individual health professions and previous research has highlighted features unique to radiography. Firstly, radiographer and patient meet for only a short time and in a highly task-focussed setting in which producing the image is a priority such that Reeves suggested that in radiography image-centred care might be a more appropriate term than its patient-centred partner (Murphy, 2009; Strudwick, Mackay and Hicks, 2011; Reeves, 2018). Secondly, the especially technical nature of DI procedures distinguish them from other patient-practitioner interactions; Munn and Jordan, in their qualitative systematic review specify features unique to DI including magnetism or radiation, intravenous contrast or gas administration, and noise or unfamiliar sounds (Munn and Jordan, 2011). Their study referred to CT and MRI,

but their findings could apply to other DI modalities and raises the question of whether patients with prior knowledge or experience of a DI procedure differ in their expectations of an encounter with a radiographer compared with a nurse, physiotherapist or other healthcare practitioner. Although not unique to radiography, the pressures of time and demand on staff in an under-resourced NHS are widely reported in policy, press and media. However, radiography research indicates that patients have been increasingly valuing speed and throughput for some time (Reeves and Unett, 1999). This, and the technological changes in imaging, particularly the advent of digital imaging mean that imaging patients is increasingly becoming akin to a dehumanising and depersonalising production line process (Hayre, Blackman and Eyden, 2016).

The next step in the review was to explore some of the concepts associated with compassion based on its definitions and contextual issues raised in order to gain a deeper understanding and hence discover whether it was possible to conceptualise compassion in radiography from the extant literature.

2.6 Associated concepts

From the definitions discussed in section 2.3, there appears to be some consensus around compassion as a process of identifying with or relating to another person's suffering, with empathy a commonly associated term; variously described as concern, sympathy or distress at another's suffering (Batson, 2009). There is therefore clear involvement of feelings and emotions in compassion but, further, a decision as to whether and how to act to alleviate suffering. The concept of intelligent kindness offers a model for understanding this. First in this section however, the concept of care and its relationship with compassion is explored.

2.6.1 Care

Use of the term 'care' is ubiquitous in health parlance and few would argue that care and caring are fundamental to health policy and practice. The multi-faceted nature of care is illustrated through the variety of ways that the term is used: taking care, caring for, caring about, and care of (the patient); and care is often yoked with compassion as though the two were synonymous. My research question asks about the meaning and experience of compassion *per se* but in the

literature it is almost impossible to detach it from care. Radiography research has explored such aspects of care as person-centredness, values-based- and relationship-centred care using principally qualitative methodologies (Bolderston, Lewis and Chai, 2010; B. J. Dewar, 2011; Strudwick, Mackay and Hicks, 2011; Dewar and Nolan, 2013; Brask and Birkelund, 2014; Strudwick and Newton-Hughes, 2017), with interesting findings around perceptions of whether the technical aspects of radiography constituted care in medical imaging. Amanda Bolderston and colleagues found a lack of agreement amongst radiation therapists as to whether the technical aspects and procedures were considered a part of caring, and Strudwick and colleagues attribute this to the difference in priorities for radiographers compared with nurses; radiographers being principally concerned with the task of producing an image, moreover in a brief time window. Brask and Birkelund's research findings suggest care in radiography can be subsected according to whether it is administrative, instrumental or compassionate; the latter consisting of interpersonal and emotional elements, but all three components constituting care (2014). Since compassion is a feature of a relationship that involves perceptions, feelings and actions of one person towards another, it is perhaps unsurprising that compassion and care are so closely tied. Actions towards another based on caring feelings and perceptions around suffering are the subject matter of the next section.

2.6.2 Empathy

Defined as the ability to understand and share the feelings of another (OED online), the uncomplicated narrative around empathy is of a positively valued characteristic which promotes prosocial behaviour (including compassion), in turn inspiring such responses as gratitude and warmth. (Ferguson & Johnson 2014, p10). It would therefore seem an absolute prerequisite for a member of the caring professions, appearing to confer benefits for both giver and receiver of care and indeed is trumpeted widely in healthcare policy documentation, although Anna Smajdor and colleagues question both its necessity and sufficiency in patient care (Smajdor, Stöckl and Salter, 2011). Batson subsects empathy into cognitive ("How would I feel if it were me?") and emotional, (a sympathetic "I feel for you") (Batson, 2009). Whilst each of these could enable a radiographer to connect more closely with their patient thereby creating a positive experience for both,

research suggests that empathising with physical and social pain (for example of embarrassment and shame) is limited when not actively experienced (Loewenstein, 2005; Nordgren, Banas and MacDonald, 2011). Empathy is clearly highly valued in healthcare, however in this context several issues arise; first is the somewhat dark notion of psychopathy, in which a combination of high cognitive and low emotional empathy produces a practitioner who can know their patient well, but who does not care about them (Blair, 2005). At best this may manifest as behaviour that is perceived as offhand or cold, at worst it may negate the motivation to do no harm, potentially producing an exploitative or manipulative practitioner; detecting this is a challenge in the recruitment process. The second issue is that of empathic distress; a breach in the emotional boundaries between radiographer and patient which could lead to a decline in empathy over time: this is discussed in greater depth in section 2.7 where emotional barriers to compassion are explored. A further issue arises when considering the negative connotations for patients around emotions associated with empathy such as pity and sympathy which, rather than relieving suffering in their recipient, can instead augment them by invoking the social pain of shame or resentment (Cassell, 2005). Having explored concerns around the relationship of empathy with compassion, the review also uncovered motivational and altruistic components. These are addressed through an exploration of intelligent kindness, discussed next.

2.6.3 Intelligent kindness

Unlike empathy, in which the focus is on a reflective capacity to feel for oneself another's feelings, kindness can be seen as one of a cluster of terms (including compassion) which suggests the outwards direction of the self towards another rather than inwards (Peterson and Seligman, 2004). Kindness may incorporate an element of altruism, in which there is not necessarily an expectation of reciprocity from the behaviour (*ibid*). The virtue and positive connotations of kindness may appeal to the sentimentality of those contemplating compassion, however Campling argues that kindness is more than sentimental and is "a binding, creative and problem-solving force that inspires and focuses the imagination and goodwill." (Campling, 2015, p4). She puts forward a concept of intelligent kindness encapsulated in the model in Figure 3, in which the altruistic

directing of one's attention towards another sets in motion a chain reaction leading to a virtuous circle of reactive and proactive care. This is discussed with the inclusion of examples relating to DI.

The graphic in figure 3 has been removed prior to upload to ORE

Figure 3: Intelligent kindness: a virtuous circle (Campling, 2015)

The suggestion that attending to the patient fosters an alliance that leads to 'better outcomes' is intuitively plausible, and in radiography there is some research that could develop this idea. One example comes from Strudwick's observations of the radiographer-patient interaction which has identified the efficacy of "a set patter of speech being used by a radiographer with their patient" (Strudwick, 2013); Strudwick suggests that this ensures that correct technical procedures are followed, but if this were expanded to form part of the therapeutic alliance, perhaps in terms of rapport development, then the interaction could achieve more than completing satisfactorily the procedural and technical elements and incorporate some of the human and interpersonal ones. Attunement, that aspect of empathy which relies on identification with another's feelings and emotions may be appropriate but also inhibit professionalism, in particular the maintenance of emotional boundaries that protect against distress, empathy decline and compassion fatigue (Halpern, 2003). Although discussed in Campling's article, the model overlooks this caveat and idealises the patientpractitioner relationship whilst omitting the capacity or capability for emotion management. Emotions are fundamental to empathy and kindness in patient care and their role and function in radiography research has focussed principally on emotional intelligence, with an alternative concept, that of emotional labour explored in relation to their management when facing the demands, pressures and expectations placed on radiographers in caring compassionately for their patients.

In this section concepts which underpin definitions of compassion have been explored. For radiographers, these involve:

 the relationship between compassion and care for patients undergoing diagnostic imaging;

- scrutiny of a closely associated term, namely empathy and questions regarding its unquestioning acceptance in compassion;
- a proposed model of intelligent kindness that incorporates intellectual and altruistic qualities in a therapeutic connection with patients.

Mediating these are the mechanisms that monitor and regulate emotions, and the issues involved in emotion management in order to be able to care with compassion are discussed next.

2.7 The role of emotions in compassion and care: emotional intelligence, emotional labour

Despite surface appearances of radiography as a primarily technical and taskfocussed discipline, emotions and feelings are an unavoidable component, whether expressed or perceived, or not, by radiographer or patient during the imaging encounter. Radiography research has explored the concept of emotional intelligence (EI) which according to the original designers of the concept is defined as:

"the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey and Mayer, 1990, p189).

Clearly this would appear to be a useful construct in compassion research and positive associations with both empathy and compassion have been demonstrated (Arora et al., 2010). From Salovey and Mayer's research and others such as Goleman (Goleman, 1996), the consensus is that EI is a relatively stable individual trait that is trainable, measurable and testable, although this relies on uncritical acceptance of the theory and practice of differential psychology and psychometrics. Even though the construct of EI has undergone several iterations, from a single unified trait to more specific differentiations such as trait and information processing EI (Petrides and Furnham, 2000), it remains the case that EI is commonly regarded in terms of competence or capability, residing in an individual that can be reliably measured and validated. Based on

this assumption, Mackay et al have benchmarked and compared trait El within the radiography profession; their findings indicate that radiographers score higher in measures of emotional intelligence than a normative sample drawn from database representing a range of jobs. They have also demonstrated that there is no difference between diagnostic and therapeutic radiographers' trait EI in their studies (Mackay et al., 2012, 2013, 2015; de Galvão e Brito Medeiros et al., 2017). These findings suggest that patients might feel more confident if they knew that their radiographer is more emotionally intelligent than a member of the general public; since attunement to their feelings and anxieties, seen as a component of intelligent kindness, might reasonably be regarded as integral to a compassionate practitioner. Mackay et al have also demonstrated that trait El measures are higher in radiographers than students (Mackay et al., 2015), but that EI scores do not change over undergraduate courses that do not include EI in their curricula (de Galvão e Brito Medeiros et al., 2017), lending support to the suggestion that EI is trainable, and opening the way for a discussion of the influence of the radiography curriculum on El. There are also implications for radiography recruitment in terms of EI as an indicator for appraising suitability for a candidate applying for a career in radiography.

Whilst this research offers promising insights for radiography recruitment, education and practice in compassionate patient care, a note of caution should be sounded at the unquestioning acceptance of intelligence, emotional or otherwise, in compassion research. Principally the construct is defined by its measures and is therefore self-fulfilling and in the case of EI, Lewis and colleagues have raised methodological doubts over the construct and predictive validity of the instruments devised to generate such measures as Petrides's TEIQ skill set used in Mackay et al's research and from which the normative sample was also drawn (Petrides and Furnham, 2000; Lewis et al., 2005). A further problem lies in the notion of both intelligent kindness and EI as residing within the individual; for as long as emotions are regarded in terms of capability and capacity with measurable outcomes, EI research can continue to offer some useful insights. If, however, viewed in terms of qualities such as emotion management and regulation then perhaps the researcher's gaze might be better directed away from ideas of intelligence with its focus on the individual towards

social, cultural and organisational factors which also play a part. With this in mind, it can be useful to turn attention to the notion of emotional labour (EL); widely credited to seminal work undertaken by Hochschild who defines it as "the induction or suppression of feeling in order to sustain an outward appearance that produces in others a sense of being cared for in a convivial safe place" (Hochschild, 1983, p7). Although chiefly discussed and critiqued in the organisational and management literatures, the concept of emotional labour is increasingly relevant in today's NHS where Hochschild's 'customer contentment' (1983:8) readily translates into the patient satisfaction scores embraced with enthusiasm by Trust managements. Hochschild explored the commodification of the work (labour) involved in resolving the tension between, in her terms, surface acting, the outward appearance of one emotion which may not be felt internally and deep acting, an evoking of inner empathic feelings more congruent with their outward appearance. The concept is therefore useful in thinking about the effort involved in the portrayal and management of emotions integral to compassionate patient care, in particular the tensions between emotional labour and authenticity in a caring profession increasingly residing within a business model, and now, also one under the spotlight illuminating the implications of recommendations in the Francis Report regarding compassion and its expression. In a critique of Hochschild's theory, Bolton and Boyd wonder to what extent emotion work i.e. the management of our emotions in our private, i.e. unpaid lives spills over (in Hochschild's words, transmutates) into our working ones, where in Hochschild's seminal exploration of airline stewardesses, payment is made communications of warmth and positive affect when the authentic feeling might be quite the opposite. This resonates with government responses to the Francis Report with regard to incentivising compassion seen in section 2.4.1. In other words, Bolton and Boyd's critique prompts questions for this study of the boundary between the role of radiographer and the person, how this impacts professionalism, and how radiographers can manage their feelings around the demands and priorities of management and customers - in this case patients (Bolton and Boyd, 2003). Interestingly this complex issue was addressed in radiography research some time ago, but was never followed up; in his work drawing on Goffman's Dramaturgical theory, with which Hochschild's work resonates, Murphy suggests that radiographers perform a role in terms of 'front of house' impression management which may contrast with 'backstage' behaviours away from patients (Murphy, 2009). Bolton and Boyd's differentiation of different types of emotion management (Bolton and Boyd, 2003) widen the view of emotional labour and begins to address questions of how much of themselves radiographers bring to their professional lives and practice when they embark on a career in radiography.

The works of Hochschild, Murphy and Mackay have not so far been brought together to explore how EI might interact with EL when performing the role of radiographer. Mackay however has explored the role of EI in mediating emotional health, wellbeing and work-related stress, with radiographers appearing to enjoy high levels of wellbeing indicated by their perceptions of being "successful, confident, cheerful and satisfied" (Mackay et al., 2012). Other evidence however, suggests that attitudes and work pressures are impacting negatively on radiographers (Yielder and Davis, 2009; Hutton and Eddy, 2013; Hutton et al., 2014). Examining models of EI more closely, it becomes apparent that specific features such as clarity and emotional repair buffer against stress (Augusto Landa et al., 2008), which suggests that further exploration of the interaction of EI with EL would be a fruitful exercise.

This section has teased apart the role of emotions in caring with compassion for patients during diagnostic imaging. The key points are as follows:

- Emotional intelligence research has shown promise in its potential for establishing a link with compassion in DI, although a primary focus on individual radiographers fails to take account of wider social and organisational factors;
- Emotional labour is a useful concept for thinking about where any distinction might lie between the role and person in radiography;
- Dramaturgical theory offers a theoretical framework which may facilitate deeper understanding of the interpersonal relations between radiographer and patient;

 El and EL may be able to offer helpful insights into the emotional aspects of DI, such as stress, pressure and distress.

Stress and workload pressures are well documented in the radiography and wider healthcare literatures as barriers to compassion. There are others, and the next section explores these and other physical and emotional factors which can hinder compassion in a diagnostic imaging encounter.

2.8 Barriers to compassion

Physical barriers in DI between patient and radiographer chiefly take the form of measures designed to protect radiographers from radiation. The lead glass control panel behind which radiographers disappear to make the exposure is one, physical principles guiding radiographic practice are another. Distance is one example; exemplified by the Inverse Square Law in which the danger to radiographers from radiation is reduced in proportion to the square of the distance from its source, i.e. the x-ray tube (Graham, Cloke and Vosper, 2011). Since the tube is necessarily close to the patient, radiographers must distance themselves from both in order to protect themselves from the harmful effects of the radiation emitted from the tube. These physical radiation barriers however can also represent or indeed create emotional barriers between radiographer and patient. For example they accentuate the solitude experienced by a perhaps already anxious patient undergoing DI, although it has been shown that compassionate care can consist of 'little things' which can ameliorate for this such as physical contact and kind gestures (Bleiker, Knapp and Frampton, 2011; McMaster and DeGiobbi, 2016). The emotional proximity between radiographer and patient is also affected by other factors such as the language and terminology of medicine used by radiographers. As proposed by Murphy in his research drawing on Dramaturgical theory (Murphy, 2009), medical and lay terminologies differ according to whether used front- or backstage. Using medical and radiographic language with patients places a barrier to communication and understanding in much the same way as travellers meeting locals in a foreign country by isolating each from the other. These examples of physical, emotional and language barriers to compassion between radiographer and patient have however, also

been proposed as means by which a radiographer's emotional capacity is preserved by distancing and detachment from their patient (Reeves and Decker, 2012). Seen also in nursing and medicine (Blomberg and Sahlberg-Blom, 2007; Shapiro, 2011) distancing is proposed as both a barrier to compassion and a way of managing the distress and suffering of patients that radiographers encounter daily, and which can provoke empathic distress.

2.8.1 Empathic distress, empathy decline and compassion fatigue

The relentless demand for compassionate care is recognised as emotionally draining and a contributor to stress (Keogh, 2014), although there is some research which appears to support the notion that higher levels of compassion are associated with lower levels of stress (MacBeth and Gumley, 2012). These apparently conflicting ideas might be explained if it was clear whether their authors were referring to compassion as an emotion or an individual characteristic; the authors refer only to a "compassionate attitude". However, Mackay and colleagues also found that whilst diagnostic and therapeutic radiographers scored higher than the normative sample used in their study for compassion's close relative empathy, they also scored lower for personal distress; they speculated that radiographers may have "a degree of immunity and/or control of emotional responses to distress and suffering" (Mackay et al., 2012, p167). There may, then be a dispositional component which both favours compassion and protects against its deleterious emotional effects. Nevertheless, some health practitioners caring for those suffering trauma and distress suffer a decline in empathy and compassion fatigue, otherwise termed secondary traumatic stress (Figley, 1983). Its precursor, empathic distress is a known phenomenon in radiography (Strudwick, Mackay and Hicks, 2012). Compassion fatigue has been identified in therapeutic radiographers (Hutton et al., 2014; Sarra and Feuz, 2017), although not as yet in their diagnostic colleagues. Reeves and Decker wonder whether diagnostic radiographers choose a career in the profession precisely because there is less involvement both physically and emotionally with patients (Reeves and Decker, 2012, ibid), although to date no empirical radiography research has taken up this question. Empathy decline has been noted over the course of medical training even before physicians commence practice (Hojat et al., 2009; Neumann et al., 2011) and these writers raises concerns that medicine's focus is becoming more procedural. If so, this raises the question of whether the technical and procedural aspects of radiography impact on empathy in a similar way. Other factors may be more pertinent to empathy and compassion in radiography such as medical dominance, which has been shown to produce feelings of subordination, apathy and helplessness in radiographers (Yielder and Davis, 2009). These feelings feature in the theory of Learned Helplessness, being that state acquired after an individual's lengthy exposure to situations over which a perceived lack of control is inferred (Peterson, Maier and Seligman, 1987) and resonate with the features of empathy decline and compassion fatigue which include numbness, apathy and helplessness (Raphael, 1986). Other features common to healthcare work such as workload and shift work also engender stress (Augusto Landa *et al.*, 2008) and there is evidence seen in the next section that radiographers are subject to these stressors.

2.8.2 Stress and burnout

It is not only the suffering of their patients which can engender stress in radiographers. Both diagnostic and therapeutic radiographers have cited the greatest sources of pressure as resource-based; i.e. staff shortages, workload pressures and lack of time (Eslick and Raj, 2000; Rutter and Lovegrove, 2008; Verrier and Harvey, 2010), although research into therapeutic radiographers more commonly reports burnout as possibly due to greater emotional involvement with their patients through developing closer and longer-term relationships than do their diagnostic colleagues. The pressure to continually develop their personal and professional portfolios through a programme of CPD has also been shown to create additional stressors and pressures on radiographers (Innes, 1998). Previously optional, for the last six years CPD has been included in the criteria for professional registration (HCPC, 2013). More recent observations of the impact of nearly a decade of austerity on health and care professionalism suggest in addition to these stressors, a moral distress is arising from the constraints placed on radiographers' and other health professionals' capacity and capability to care for patients (Owens, Singh and Cribb, 2019).

Key barriers to compassion highlighted in this section include:

- Physical properties and characteristics of the diagnostic imaging encounter such as radiation protective screens and distance between patient and radiographer which may contribute to feelings of emotional distance between radiographers and patients. These can be ameliorated to some extent by small gestures and 'little things';
- Physical and emotional distance between patient and radiographer may serve to protect radiographers from becoming too emotionally involved;
- However, empathic distress, empathy decline and compassion fatigue are known stressors in radiography, as are workload pressures and moral distress.

There has been some research in radiography into coping strategies used by radiographers although the literature is sparse. What literature was found is discussed next.

2.9 Coping with stress and emotional barriers to compassion

Both stress and coping impact on radiographers and their capacity for, and capability to care. Lazarus and Folkman's theory of coping includes problem-focussed methods, for example information gathering, and emotion-focussed such as relaxation and meditation (Lazarus and Folkman, 1984); with the former seen as more effective than the latter in maintaining good mental health in the face of workplace stress (Chang *et al.*, 2007). Despite this favouring of objectivity and reasoning as coping strategies, Tugade and Fredrickson found that experiencing positive emotions can be influential in the regulation of negative emotions (Tugade, Fredrickson and Barrett, 2004), suggesting an effective role for emotions in stress and coping; although there is a lack of longitudinal research into the sustainability of these strategies. Tugade *et al*'s literature review highlights some of the psychophysiological and cognitive benefits of positive emotions associated with laughter and humour in coping with, and promoting resilience to stress. Two aspects of managing and coping with stress have been

explored in radiography research. The first is humour, in particular the notion of dark humour and the second, the quality of resilience; these are discussed in the following sections.

2.9.1 **Humour**

The use of humour as a coping strategy is one of particular interest. Laughter and mirth are known stress moderators (Snyder and Lopez, 2005) and Strudwick has observed the use of dark humour in radiography; the radiographers interviewed justified its use as a way of dealing with the disturbing and sometimes distressing aspects of their work (Strudwick, 2012b). Strudwick is careful to note its appearance 'backstage' (in Goffman's terms) i.e. out of earshot of patients and this approach is wise; in the King's Fund's Point of Care document examples are given of the inappropriate and unhelpful ways in which attempts at using humour to lighten a dark situation only make matters worse (Firth-Cozens and Cornwell, 2009). This suggests that the place of humour in a conceptualisation of compassionate care in DI should be carefully considered and patient-led; a notion supported by Schopf et al (Schopf, Martin and Keating, 2015). Bleakley and Marshall draw on psychoanalytic theory, in which humour is "an emotional" anaesthetic, deflecting and absorbing the full impact of affect that would otherwise be too much to bear" (original reference to Freud, 1928), but acknowledges that if overheard by patients would cause deep shock and even horror. They further recognise the potential for detachment and desensitisation to patients associated with laughter and humour (Bleakley and Marshall, 2012). Bolton and Boyd offer similar insights into the purpose and function of humour, but extend this to include coping with other stressors such as relief of boredom, expressing emotions such as frustration and social bonding and support amongst colleagues (Bolton and Boyd, 2003, p298). Whilst humour is one response to stress, another, which has been widely promulgated in the NHS in the interest of promoting staff wellbeing is resilience, broadly described as 'bouncing back' from adversity (Snyder and Lopez, 2007). Resilience, like compassion has been enthusiastically but uncritically embraced yet remains an objective of the NHS (HEE, 2019). A more measured discussion follows.

2.9.2 Resilience

Resilience research in psychology dates back to the 1970s when attention was drawn to 'exceptional' children, who developed well in the context of risk or adversity. Since that time research has widened to individuals' psychological capability to make positive mental adjustments in the face of negative or stressful situations (Tugade, Fredrickson and Barrett, 2004). In the context of compassion for this study the working definition is:

"the ability to maintain personal and professional wellbeing in the face of on-going work stress and adversity" (McCann et al., 2013, pp60-61).

McCann et als review of resilience in five health professions (none of which however was radiography) demonstrated only a weak association between problem-focussed coping and resilience (McCann et al., 2013), suggesting that theories of coping such as Lazarus and Folkman's would not necessarily translate into a more sustainable resilience. Whilst resilience was associated in their study with individual qualities such as hope and self-efficacy, their review also indicated that resilience does not reside solely in the individual, but is a product of the interaction between person and context. In a position paper Garrett commented on the neoliberal ideological emphasis on individual responsibility for coping, further observing how resilience - in the same way as compassion post Francis Report - fast became a political and academic preoccupation whilst escaping the critical scrutiny necessary to challenge assumptions of its value (Garrett, 2016). He goes on to remark that within an unquestioning acceptance of resilience lies a demand for acquiescence rather than resistance to a prevailing culture of individual responsibility in organisations focussed on market driven healthcare. Lake (2016) in a pithy challenge to the unquestioning acceptance of resilience as an organisational aspiration for individual employees asked: "if you find yourself being hit repeatedly with a stick, do you want the source of your pain to offer you some padded clothing so they can carry on or maybe even hit you harder? Or, do you want them to stop beating you?" (Lake, 2016). Traynor made similar observations with regard to the nursing profession and proposed a critical resilience; that is, developing an understanding of, and getting together to talk

about the political and policy influences that ultimately influence the stressors in clinical practice (Traynor, 2018).

2.10 Key messages from the literature review

The outcome of the literature review has highlighted the paucity of research into the nature of compassion in radiography practice and education. A further review of the literature undertaken at the end of the analysis phase revealed little has changed, although exploratory work is being undertaken in radiotherapy with a concept analysis in that context (Taylor 2017), discussed in section 2.2. A discussion is also opening up with regard to the pedagogy of compassion in radiography (Hendry, 2019). Definitions of compassion coalesce around ideas of an emotional disturbance in one person upon witnessing the suffering of another, promoting a desire to take action. The notion of deserving suffering has been lost in many definitions, consequently so have ideas around judging and judgmentalism in compassion. Following publication of the Francis Report, responses in policy and professional bodies were hasty and tended to address issues of benchmarking and measuring compassion in individuals with a view to incentivising and somehow increasing compassion. Few stopped to question whether this was actually needed, nor what was meant by compassion in practice; in the case of this study in the diagnostic imaging encounter. Further, whether compassion was a virtue, quality, characteristic or an emotion of individual radiographers, or whether it resided elsewhere, perhaps in the culture of an organisation were left unquestioned. The issue for radiography recruitment, training and education of whether compassion can be taught also remains unanswered.

Compassion is underpinned by, and associated with a number of other concepts. Care is closely yoked with compassion in the literature to the extent that at times the two can be difficult to differentiate. Empathy and kindness are close relatives to compassion but the nature of their relationship is unclear. Emotions play a role in compassion and the concepts of emotional intelligence and labour have been explored as possible mediators of compassion, both in terms of the radiographer-patient interaction, and of individual radiographers' emotion management. A

theoretical understanding of how compassion is incorporated in the radiographer-patient relationship may be gained from Dramaturgical theory. Barriers to compassion can be physical, psychological and administrative, with distance and distancing serving dual purposes of radiation and emotional protection. Management of barriers for radiographers includes the use of humour, some of which would be highly inappropriate were it to be shared with patients, but the often championed notion of individual resilience is challenged by enlightening the discourse around neo-liberalist philosophies. Having discussed these contextual issues around compassion, it is clear that the literature lacks the all the necessary detail to conceptualise compassion in DI. I therefore present a case for an exploration of compassion that will provide evidence for the gap in the existing literature.

2.11 Chapter summary

This chapter has reviewed the discourses around compassionate patient care from a range of published and unpublished materials. Studying the literature has revealed an abundance of nursing research which deifies compassion and it is clear that compassionate patient-centred care is close to the forefront of policy and protocol. However, the medical ethics and humanities literatures question these unchallenged assumptions of the goodness and ubiquity of compassion and its related concepts, and only in a very few opinion pieces are the ideological assumptions underpinning the individualisation of compassion illuminated. Other than a single concept analysis in diagnostic radiography's sister profession, therapeutic radiography, there is no empirical research into compassion in diagnostic radiography, although there is an increasing recognition in the profession that research is needed. Ramsay's assertion made in section 1.2 appears to still stand:

"More research into what it means to be compassionate and how compassion should be learned and applied is needed before a programme of change, based partly on assumptions... is introduced" (2014, p112).

Chapter 3 provides an account of the methodology and methods of data collection and analysis used in this project.

Chapter 3: Research paradigm and methodology

3.1 Introduction

The rationale for this research was a challenge to the largely unquestioning acceptance of a recommendation in the Francis report for an increased focus on compassion in healthcare education and training without first considering what the term itself meant. The literature review presented in Chapter 2 explored from theoretical, evidence-based and ethical perspectives what research into compassion in radiography and the wider health literature had revealed thus far, including its associated key concepts such as empathy and altruism, and issues that called for further exploration. An example can be seen in one of the key policy and guidance documents issued by the College of Radiographers who oversee and accredit pre- and post- registration radiography programmes. The Code of Professional Conduct, with which students and radiographers are expected to be familiar, states that radiographers "must provide best compassionate care for patients based on up to date evidence" (SoR, 2013). The statement does not expand on what the term compassionate means, referring only to patients' physical safety; this research could provide an evidence-based broader, more comprehensive explanation of compassion and its principal components. My research paradigm was chosen in order to explore and construct a concept of compassion in diagnostic radiography and in this chapter, the logic of my methodology is explained, from its ontological and epistemological roots, through to the methods used in assembling and analysing the data. Included also is a framework for discussion of the inevitable limitations to the study which will take place in Chapter 8. Ethical considerations particular to this study are also examined, and the chapter ends with a discussion of the treatment and thematic analysis of the data.

3.2 Research paradigm; theoretical and philosophical foundations

This section presents the research paradigm; the theory and logic underpinning my methodology. Established over time as the thoughts and ideas of groups of like-minded scientists evolve, paradigms consist of agreed philosophical assumptions and ways of thinking about a question or problem (Kuhn, 1970). This research paradigm was dictated not by any perceived superiority of one over another, but by that which was most appropriate for answering the research question. By asking patients, students and radiographers how they thought about and made sense of their experiences with regard to compassion in diagnostic imaging and interpreting their responses, a concept of compassion could then be constructed. The schematic summary in figure 4 details this.

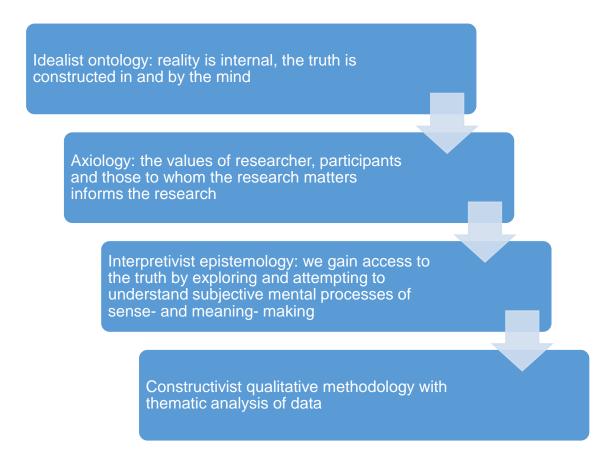


Figure 4: Schematic summary of my constructivist research paradigm

For the outcome of a research project to be convincing, the methodology must be logically rooted in its ontology and epistemology. When these derive from a subjectivist ideology the end result is a construction; Lincoln proposes perhaps rather provocatively that "objectivity is a chimera", but that axiology - the subjective values of researcher, participants and others to whom the research relate – must be integral to the paradigm (Lincoln, 2013, p41). My personal values were made explicit in Chapter 1 and permeate my research, and the values of all my participants together with wider organisational values of the NHS are explored in the analysis of the data and discussion of the results.

Constructivism is rooted in the philosophy of idealism; the inquirer and the known are in dynamic interaction rather than discrete entities. When viewed from this position the distinction between ontology and epistemology blurs (Guba and Lincoln, 1994), and knowledge and truth are not discovered but created through mental processes of meaning-making, hermeneutics and understanding. Weber's notion of verstehen encapsulates the systematic and interpretative nature of this method of exploration in the social sciences (Blackburn, 2005). Constructivism is a term at times used interchangeably with constructionism in some published articles and I wanted to be clear that I was taking a constructivist rather than a constructionist approach to avoid epistemological and methodological slurring. Whereas constructionism emphasises the primacy of social interactions in shaping knowledge and understanding (Vygotsky, 1962; Gergen, 1985), constructivism places individual psychological processes closer to the foreground (Piaget and Inhelder, 1967; Lincoln, 2013). As a researcher with a bachelor's level qualification in psychology, rather than sociology I felt more at home approaching my research from the latter viewpoint. I turn now to the methodology; both the theoretical foundations upon which my methods are based and the research strategy.

3.3 Qualitative methodology

Viewed from an interpretivist position, reaching an understanding of compassion in the context of diagnostic imaging requires at least some appreciation of individuals' experiences; a phenomenological study could have explored patients' or practitioners' worlds and identified some of their idiosyncrasies. However I was interested in the physical, psychological and socio-cultural context in which they are set; current models of health and health related behaviours such as the Biopsychosocial model (Engel, 1997) favour this way of viewing patients and their care over more traditional medical models. I considered other qualitative methodologies such as an ethnographic study where, as a participant-observer I could study radiographer-patient interactions in the naturalistic setting of the x-ray department, but chose not to for the following reasons. Firstly, there are a number of reports already in the radiography literature that have utilised this

methodology and which have made a significant and valuable contribution to the evidence base in the field of patient care in diagnostic imaging (Strudwick, 2011, 2012a, 2014b; Strudwick, Mackay and Hicks, 2011; Strudwick and Newton-Hughes, 2017). I wanted to augment this growing body of knowledge from a different position and to seek information more specific to compassion. Secondly, I wanted to hear from all my participants their own interpretations of events rather than make inferences from my observations. I considered an action research methodology, but as I am retired from clinical practice and therefore not up to date with current trends and customs, it would have been inappropriate. The discursive methodologies such as critical discourse and narrative analysis focus on interaction and social construction, but these are viewed through a prism of power and inequalities whether economic, gender-related or political; this I felt would be less informative to my goal of providing a broad perspective on compassion and recommendations for radiography education, research, practice and policy. I did not want to rule out the possibility of identifying and perhaps analysing narratives or discourses within my data, but this was not my main agenda. My work has been guided by some, but not all of the principles of constructivist grounded theory (CGT); epistemologically interpretivist with origins in post-modern pragmatism (Dey, 1999 p.25), Kathy Charmaz's CGT resonated with my choice of a constructivist paradigm and I used methods consistent with her approach; in this case semi-structured interviews and focus group discussions. Where I departed from her methodology was in my thematic analysis (discussed in detail in section 3.9) rather than the constant comparative method which is informed by theoretical sampling.

3.4 Research design

In this section I discuss the sampling and recruitment of my participants and the criteria used for evaluating the quality of my research. Although x-ray departments are staffed by what can appear to be a mystifying collection of health professionals, my choice of participants was based on a wish to hear from those most closely involved in the procedure which directly results in production of the diagnostic image. I chose three groups of people; firstly, patients who had

undergone diagnostic projection imaging where, as seen in the literature review, the interaction is brief, highly technical and task-focussed (Strudwick, Mackay and Hicks, 2011). Secondly, students, whose professionalism is shaped not only in the classroom but vicariously as they observe and imitate their clinical educators (Bandura, 1971) and, furthermore "are invaluable eyes and ears in a hospital setting" (Francis, 2013a, p60). My experiences as clinical and academic mentor and educator taught me that there is sometimes a dissonance between classroom and placement learning which is not always easily reconciled, and I wanted to build a picture of how student radiographers as a group construed their roles as compassionate professional practitioners. Finally, I wanted to learn what radiographers thought and felt; as one myself, I sometimes felt like the nexus between a theory-laden student and their patient-focussed practice.

I was interested in all my participants' impressions, feelings and judgements, so whilst a good memory was necessary, perfect recall was not a prime concern; the focus of my research was the sense they made of their experiences based on their perceptions, feelings, interpretations and attributions. My view is supported by Joffe who maintains that it is not accuracy of recall that matters, but the meaning and sense made of experiences (Joffe, 2012). Whilst a lack of memory impairment was essential, detailed recollection of context-free facts lying in semantic or short-term memory was neither necessary nor appropriate; I was exploring events of personal significance to my participants, a function of autobiographical episodic memory in which top-down schemata interact with bottom-up episodic memories (Tulving, 1972; Cohen, Kiss and Le Voi, 1993). I also utilised Brown and Kulik's notion of the 'flashbulb memory'; the selective preservation of episodes and events, often with vivid and quite detailed recall due to affective or emotional processes in combination with cognitive ones (Brown and Kulik, 1982). The way that emotions and feelings came to be represented in the data is presented principally in Chapter 6, but also throughout the results and discussion chapters.

3.4.1 Sample size

Unlike positivist research where sample size, and therefore quantity of data is determined by conducting *a priori* power calculations, the qualitative researcher

with a clearly articulated paradigm knows how to acquire their data, but not how much will be needed; a challenge when required to justify the number of participants often before research gets underway. Saturation of categories with data is a widely agreed way of knowing when to stop (Morse, 2015), although she argues this from a positivist orientation to qualitative research. Further problems lie in erroneous assumptions of a shared understanding of the term which is frequently misused (Nelson, 2016). This is compounded by low levels of transparency in demonstrating how saturation was achieved and provides grounds for criticism as well as confusion (Malterud, Siersma and Guassora, 2015; Hennink, Kaiser and Marconi, 2016; Nelson, 2016). Hennink et al offer a helpful distinction between code saturation, in which a point is reached when the researcher has "heard it all" and meaning saturation where he or she can "understand it all" - in other words meaning saturation signifies a more interpretive analysis (Hennink, Kaiser and Marconi, 2016). Ultimately, Braun and Clarke put their weight behind Patton's claim that "there are no rules for sample size in qualitative inquiry" (Patton, 2002 as cited in Braun and Clarke, 2013, p55). Consequently my sample size of 34 NHS ex-patients and 35 students over 5 focus groups was determined not by saturation but by consideration of the issues outlined above and more practical considerations of time and resources.

Purposive criterion sampling (Bryman 2016, p409) of patients and students was undertaken, with an opportunity sample of radiographers as described in section 3.4.5 so that I could acquire data from the perspectives of those most closely involved with regard to compassion during diagnostic imaging procedures (Denzin, 1978; Patton, 1999). I have refrained from calling this triangulation as this tends to be a means of cross-checking and validating findings more commonly associated with research conducted from closer to the positivist end of the spectrum of qualitative research methodologies. Nevertheless I considered it valuable to hear about compassion from a range of perspectives, not so that I could arrive at a consensus, but more that I could demonstrate both its idiosyncrasy and complexity. Purposive sampling is considered by some, particularly those of a objectivist inclination to be a less credible sampling method. This was not considered a concern since I was not aiming to generalise my findings, rather to see if they resonated with the reader of this research. Sampling

criteria are discussed in sections 3.4.3 – 3.4.5 but first a note on the use of expert patients in my research.

3.4.2 Purposive sampling of ex-patients from a service user involvement group

My research institution works closely with a group of patients with lived experiences of long-term medical conditions known as the Peninsula Patient and Public Involvement Group (PenPIG). Their principal role as part of the Patient and Public Involvement in Research programme (PPI) is to give advice with regard to choice of research topics, their design and piloting, however a request to the co-ordinator for volunteers resulted in seven offers to be interview participants; these were gratefully accepted. These patients had a wide range of experiences to share, however a previous project carried out prior to this PhD (Bleiker and Knapp, 2010) highlighted the problems inherent in sampling from a cohort of patients who are well-informed as to the workings of the health-care system in which they were treated. Furthermore, their evidence may be refracted through the lens of committee and board meetings of which they are lay members, previous interviews and the reactions and responses of those to whom they have already recounted their stories. Their knowledge may also unintentionally inform their recall; an example of this is one participant who recounted that she waited four hours in the emergency department. At that time, the 4-hour wait was a key government target, consequently her testimony was laden with a significance over and above that of a lengthy wait. Mindful of the issues identified in the previous project I did not allow members of the PenPIG group to be over-represented in my study. Of the thirty-four interviews conducted, seven were participants from PenPIG, who participated as interviewees in the study rather than as PPI representatives.

3.4.3 Patients

NHS ex-patients who had recently undergone DI but who were not currently receiving treatment for the problem for which they underwent imaging were invited into the study by a variety of means, detailed in section 3.4.6.

Inclusion criteria:

- Adult participants aged 18+;
- Had undergone medical imaging as recently post-discharge as possible and within the last two years;
- In a hospital setting;
- Diagnostic projection imaging as an in- or out-patient or referral from a GP or the emergency department.

Exclusion criteria:

- Dementia and other memory disorder sufferers;
- Those for whom capacity to consent might be impaired;
- Those currently undergoing treatment in the NHS;
- Those currently undergoing radiotherapy treatment;
- X-rays taken in a dental surgery (imaging is usually undertaken by a dentist not a radiographer);
- Patients who have undergone CT, MRI, ultrasound, nuclear medicine, interventional procedures such as angioplasty, biopsy and preventative screening procedures e.g. breast screening (mammography);
- X-rays taken in a privately run hospital;
- Children.

3.4.4 Students and recent graduate radiographers

I wanted to assemble data from between six and eight student radiographers from each of the three years of the DI programme at my university so that I could look for similarities and differences in the data as students progressed towards becoming qualified professionals; I suspected that as they grew in maturity and developed a closer integration of theory with practice, there might be changes in their construal of compassion in patient care, although I made no preconceptions as to the nature of these. I also wanted to assemble data from a group of recent graduates who would have the benefit of hindsight over the whole of the course together with at least a year, but no more than two spent as a practising radiographer to see how their view of the complexities of giving compassionate care changed, if at all, once they became fully autonomous professionals, before too much of their undergraduate experience had receded. Students from one

year-group did not attend with students from another, nor did undergraduates attend a graduate group as I did not want social pressures inherent in any group discussion to be exacerbated, such as pressure to conform to a prevailing view (Asch, 1956), or groupthink, a tendency to forsake rationality for harmony in group decision-making (Janis, 1971).

Inclusion criteria were:

- Undergraduates who have successfully completed a clinical placement relevant to their year of training
- Graduates from the programme from the last two years.

Exclusion criteria were:

 Students intending to leave the course (in case their responses were shaped by especially negative emotions).

Due to the timing of focus group data collection during the academic year, I coincidentally met with the same students returning from their second placement as I did when they had completed their first. This prompted me to seek to conduct an additional focus group with the same students on completion of their third and final placement in order to explore longitudinally any changes and differences over the course from the perspective of the same students. Both longitudinal and cross-sectional data were therefore assembled from all years of the course together with data from recently graduated ex-students.

3.4.5 Radiographers

I discussed the idea of talking to radiographers with my supervisors and we had agreed to begin data assembly with students and patients. Following publication of my scoping review of the literature in *Radiography* (Bleiker *et al.*, 2016) the article was selected in May 2016 by MedRadJClub, a Twitter-based international journal club for medical radiation professionals. This was an organised discussion between radiographers on compassion which took place over a defined timeframe of 16 hours rather than a general Twitter feed and enabled me to harvest the views of approximately one hundred radiographers and examine how they discussed compassion with each other within their professional online

community. A total of 1,200 tweets were collected with contributions from radiographers and medical radiation professionals in the UK, Australia, New Zealand and Canada. Treatment of the data is discussed in section 3.8.

3.4.6 Recruitment and response

Methods of recruitment varied; for students, of which there were sixty in each year group, poster advertisements were placed around my university's medical imaging department and emails sent via the student administrator asking for expressions of interest in participating in a focus group discussion for my research. I received approximately six emails from students in each year group offering to help and I responded with participant information details and a request to confirm whether after reading them they were happy to continue; all were, and we agreed a time to meet. Recent graduate radiographers in the local area were contacted via LinkedIn and I found several willing to participate, but it proved difficult to organise a face-to-face focus group due to work pressures and shift patterns in NHS imaging departments. I began planning to recruit into an online discussion forum using Padlet in order to access these hard-to-reach groups and was favouring an asynchronous discussion (Smithson, 2008), where users can contribute when convenient to maximise contributions and for ease of moderation and keeping track. In the event however, I was able to convene a focus group of recently qualified radiographers attending a radiography educator's study day at the medical school. I deemed the advantage of a face-to-face discussion over an online one² to outweigh the limitations of the selective nature of this group's participants, which were chiefly around concerns that as a group particularly interested in education, they were not representative of the radiographer population as a whole. The same concerns, however could be said of those contributing to the Twitter discussion, student volunteers and even the patients; I took the view that my participants did represent their populations simply by dint of being human beings with a measure of altruism and, that in constructivist research the concept of bias is, if not irrelevant, then simply more data on which to reflect. For the patient interviews, emails were sent to members of PenPIG by

_

² Whilst online focus groups are easy to organise and set up, especially where geographical distances are wide and budgetary constraints are limited, face-to-face focus groups are easier to track, the conversation is more readily guided and the risk of fake online personas is eliminated.

an administrator who held a database of volunteers asking them to contact me if they were interested in taking part, the size of this database was not known to me, nor were patients' contact details unless and until they wrote to me. I also placed messages on a range of local social media groups' pages to which I had access asking for help with my PhD and specifying the inclusion and exclusion criteria.

Prospective interview or focus group participants, i.e. those who had replied to my invitation expressing an interest in taking part and who met the inclusion and exclusion criteria were sent a participant information sheet prior to attendance. They were given time to consider whether they were still willing to take part and to contact me with their decision; in the event, every respondent affirmed their consent. Patients attending for interview were offered refreshments and an offer to cover their travel expenses, and students were offered refreshments and informed that the activity could be added to their Continuing Professional Development (CPD) portfolios providing any information used from the group was kept anonymous (Chatham House Rule). I achieved positive responses from both groups of invitees; I attribute this to, firstly, contacting patients and students using a variety of channels of communication including verbal, electronic and social media. Secondly, I offered a choice of appointment times and convenient locations, usually at the medical school, but for patients who did not wish to travel to Exeter an alternative venue. Financial incentives were not offered, partly because this was a self-funded PhD with very limited additional funding beyond a donation from a philanthropic visitor to the Medical Imaging suite; also because I considered altruistic motives to take part would confer more humanitarian benefits than materially focussed motives might. I did find that there were a number of volunteers who wished to "give something back" and while I wondered what this meant precisely, the variety and range of both positive and negative reports led me to conclude that their involvement was, in the main, altruistic. The participant information paperwork (see Appendices 2, 3 and 4) informed my interviewees and focus group participants that their contribution was of value to research in patient care; I deemed this sufficient information to attract interest, but not so much that their responses could be unduly influenced. Although such issues as bias and objectivity are either embraced or resisted according to whether the research is quantitative or qualitative, both disciplines share a common aim which is to produce outcomes which can be regarded as reputable and worthwhile. How this was achieved in this project is addressed next.

3.5 Quality in qualitative research

Qualitative research has been labelled variously as unscientific, impressionistic, anecdotal, unsystematic, biased and subjective (Kvale, 1989). Some of these reflect a pro-positivist stance, others reflect the undeniably complex and sometimes mysterious nature of qualitative methodologies (Mays and Pope, 1995; Britten, 2005; Denzin and Lincoln, 2011). One option is to respond using qualitative equivalents to positivist criteria for quality; Morse argues strongly for this and for retention of the quantitative terms of rigour, reliability and validity (Morse, 1999, 2015), whereas Lincoln and Guba suggest criteria of credibility, dependability, confirmability and transferability in appraising the trustworthiness of the research (Lincoln and Guba 1985). Dixon-Woods et al discuss the complexities inherent this area, particularly the erroneous perception of qualitative methodology as a single entity, when as shown in Chapter 1 (section 1.9) qualitative methods are better viewed as on an epistemological spectrum with methods and terminology more familiar to positivists at one end and those closer to constructivists at the other (Dixon-Woods, 2004). They suggest a need for both universal and specific criteria bespoke to the theoretical perspective within which the work is located. There is a plethora of checklists for appraising quality that might meet this need (Bryman, 2016, p389), all of which are variations on asking questions as to how high a standard the research has been conducted, the consistency of the methodology with the approach taken and the usefulness or application of the research to the world outside the academic field. My work must satisfy academic criteria in order to achieve its aim of being deemed worthy of a PhD, but additionally I wanted it to offer something more meaningful and lasting. I chose, in keeping with a constructivist position, to refer to Charmaz's four criteria for overall appraisal of my research (Charmaz, 2014), but to include other criteria which meet the wider aims of this research, including a thematic analysis evaluation checklist (Braun and Clarke, 2017) and audit trail to provide

evidence of the process including decisions and choices made. Reflexivity is widely accepted as a further means of appraising research quality (Glaser and Strauss, 1967; Lincoln and Guba, 1985; Denzin and Lincoln, 1994; Charmaz, 2014); discussed initially in Chapter 1, it pervades this thesis, particularly the analysis and discussion of the results. Joffe offers further quality criteria including ensuring that the bulk of the data are included in the analysis and transparent recording of how data were selected and categorised (Joffe, 2012) and suggests that findings can be deemed of good quality when compared with studies of similar topics, although there is little in DI against which to compare. I considered constructing a codebook as recommended by Joffe (2012) who herself admits that they are taxing and time-consuming to construct; I decided against it as codebooks are more commonly associated with realist research (Nowell et al., 2017) and tend to be constructed by teams of researchers who can more easily appraise codes using inter-rater reliability assessments. Finally, I aimed to provide a clear description of the analysis in section 3.9; Carey argues that often too little attention is given to showing how results are obtained (Carey, 2016). The trustworthiness of the research as a whole was appraised using the Critical Appraisal Skills Programme (CASP) checklist (Taylor et al., 2004) and evaluated using Charmaz's criteria of credibility, originality, resonance and usefulness (Charmaz, 2014); these are outlined next with respect to my research.

3.5.1 Credibility

To be credible, the research should, in addition to answering the research question, have obtained an in depth acquaintance with the issue of compassion in DI, including conceptual insights into its meaning and expression in clinical radiographic practice. It should be supported by evidence from the data, with relevant and pertinent quotes used to substantiate the results, arguments and conclusions so that readers can form their own opinion of the analysis. The thesis should consist of a demonstrably systematic and logical analysis supported by notes, memos and a reflective journal.

3.5.2 Originality

The themes resulting from the analysis should suggest a new way of understanding compassion in diagnostic radiography. Ideas, concepts and

practices exist in other disciplines, particularly nursing, psychology and the medical humanities, but, other than one concept analysis in therapeutic radiography, none so far in diagnostic radiography. The results and conclusions should lead to an uncovering of insights previously not seen in radiography research and, whilst wary of making overambitious claims, there was a tentative notion that some of the recommendations might inform the wider healthcare field, given that some of the work pressures and demands experienced in radiography are common to other health disciplines and areas of patient care.

3.5.3 Resonance

Charmaz suggests that concepts resulting from the analysis should make sense to those involved in their generation; these could be the study participants, fellow researchers (peers) or PhD supervisors. Nelson also suggests that there should be a resonance with the literature (Nelson, 2016). Resonance differs subtly from member checking which is a popular tool utilised by qualitative researchers approaching their research from closer to a critical realist position seeking validation or verification of their findings (Bryman, 2016). For the findings to resonate, there should be a sense or feeling that something 'rings true' for the reader rather than an objective confirmation of veracity.

3.5.4 Usefulness

The research outcome should offer something of both theoretical and practical use, in this case to an understanding of compassion in day-to-day patient care in DI. The findings should also be useful to radiography education, perhaps suggesting new ways of helping student radiographers think about compassion prior to, and during their placement and on into their working lives. Discussion of the results should highlight areas for further research. Finally, the research should make a useful contribution to the knowledge base in the form of publications and presentations.

3.6 Ethical considerations

In the haste to get a research project up and running, ethical approval is sometimes treated as a hoop to be jumped through, but this attitude signals a lack of respect for those contributing to the research endeavour. Ethical issues specific to this project are discussed in this section alongside those of the University of Exeter Medical School's ethics committee whose advice I sought and acted upon, with their approval consequently granted (see Appendix 1). Appendices 2, 3 and 4 consist of the participant information sheets and Appendix 5 the consent form. I made efforts to conduct my research following my personal ethical codes of respect, kindness and non-judgmentalism. Mindful of Brinkman and Kvale's challenge to the prevailing view of an ethically sound interview as warm and empathic (Brinkmann and Kvale, 2005), I was also prepared to 'wonder aloud' about alternative interpretations to some of the issues discussed with patients and students. Every interaction began with an introduction to myself, including my personal values and my background in radiography as well as my research in order to allow participants to feel informed and trust that I would safeguard their physical and psychological welfare. Explanations of what they could expect and an invitation to ask questions at any time preceded reading and signing of consent forms and I checked periodically throughout both focus group discussions and patient interviews that participants were comfortable and happy to continue as a way of ensuring ongoing consent. No participant withdrew consent at any time however had they chosen to prior to inclusion of their data in the thematic analysis, their participant documentation, audio recording and any related field notes would have been deleted. After the period during which the analysis took place it would have been impossible for a participant to withdraw consent but there was a period of approximately four weeks between data assembly and commencement of analysis to allow participants time to withdraw consent. Radiographer Twitter discussion participants were informed on my behalf by the MedRadJClub that I would be gathering their tweets for use in my PhD and that despite the forum being open and public, their identities would be concealed in my report of the results.

To ensure privacy and confidentiality, all the focus groups and most of the interviews took place in a meeting room where the discussion could not be

overheard in one of the Medical Imaging suites at the university. Where it was more convenient for patients I met them in public places such as coffee shops, choosing a quiet corner where I could ensure we were not overheard; the 'white noise' from the coffee machines providing an aural screen to our conversation.

One of the questions generated out of the literature review pertained to whether compassion was more than rhetoric and I wanted to discover if it was in the forefront of patients' or students' minds. I decided that a way of discovering this would be to see if the term was used unprompted during interviews and focus groups. Consequently, I excluded the word from information and consent paperwork whilst considering the issue of potential deception in omitting it until I could explain the reason for this. I chose to use in its place a broader term, 'care' until it could be introduced into the focus group at Q7 and at Q3 in the interviews. As well as the issue of deception, psychological distress from recalling traumatic past events had been anticipated and measures as described in sections 3.6.1 and 3.6.2 put in place. Questions of a sensitive nature, e.g. those regarding sexual orientation or activity, mental health and recreational drug use were not required for this study.

Conducting interviews and focus groups raised issues of disparity in power relations between myself and my participants, summarised in Brinkman and Kvale's article (2005). I referred to this for guidance (pp164-165) and tried not to appear intimidating or interrogatory, presenting myself in casual but clean clothing, similar to that of my participants, and as someone grateful for their contribution, non-verbally open and interested in whatever they wanted to tell me about their experiences and without any expectations, preconceptions or judgment. I welcomed questions from my participants at any time.

The possibility of hearing of poor or dangerous practice was also considered; Strudwick discusses this in her ethnographic study of a diagnostic medical imaging department where, as a participant observer she was in a position to take immediate action should serious concerns be raised (Strudwick, 2011). The issue of whether to intervene is a judgement as to whether and what action should be taken and lies in the 'intervention dilemma' (Johnson, 2004), where the need for a personal "bottom line" to be drawn is discussed. Strudwick drew hers at the

level of potential for physical harm, but does note that she witnessed substandard practice with regard to interpersonal and communication skills of some practitioners, matters which lie at the heart of my PhD. I was mindful of several issues shaping my own 'bottom line'; firstly that any event described was already in the past and it was already too late for immediate action. Secondly the potential for misunderstanding or misinterpretation of events, either on my part or that of patients or students. Thirdly the task of assessing the damage and fourthly, recognition of the tension between idealised and pragmatic versions of caring for patients in the clinical setting. In the end I used my personal values and professional judgement, the latter guided by my professional body's Code of Professional Conduct (Society of Radiographers 2013) and the HCPC's Standards of Conduct, Performance and Ethics (HCPC, 2013). These, together with my understanding of the four principles of biomedical ethics, particularly nonmaleficence (Beauchamp and Childress, 2001), and advice from my supervisors helped me to decide any further course of action in the interests of patient, student or radiographer safety and psychological welfare. In the event, none was deemed necessary, although I did hear stories which both caused me sometimes considerable dismay and motivated me to bring my project to a successful conclusion.

3.6.1 Student-specific considerations

I was until a few years ago a member of the medical imaging teaching team which would have raised concerns around coercion of students into my study and their willingness to speak freely despite my assurances of confidentiality. My status as a PhD student, albeit one with links to the radiographic and academic community did not appear to be detrimental to students' willingness to contribute. On the contrary, I sensed they felt comfortable in the presence of an empathic researcher. Focus groups were conducted under the Chatham House Rule, which requires agreement that any information heard in the group remains anonymous outside the discussions. The students all knew each other and appeared comfortable and in agreement with both the Chatham and my own house rules regarding respectful behaviour. I tried to encourage quieter students to contribute to the discussion, but did not press them and should anyone have encountered difficulties with the subject matter they were free to leave, knowing

that support and advice were available either from me or an appropriate member of the academic team. Students could also have been directed to the university's student support service if needed; use of this safety net was not necessary. On one or two occasions students did leave before the end of the discussion, so I knew they felt comfortable enough to do this, but their reasons for leaving were not because they were upset, but because they had lectures to attend. Students spontaneously fed back at the end of the discussion that they felt that they had made a positive contribution and some kindly offered to return for further discussions.

3.6.2 Patient-specific considerations

Only NHS ex-patients not currently receiving treatment for the condition for which they underwent imaging were sought so although the project involved patients, health authority ethical approval was not required. If, in the course of the interview a participant had been reminded of incidents that left them feeling upset or unhappy, they would have been guided towards sources of support including the NHS Choices feedback and complaints pages online and, if needed, advice regarding private counselling. Whilst some patients did report some upsetting episodes, and one in particular did appear to become emotional, I was able to sit with them with an empathy derived from my experience as a practitioner, aware of the physical and mental discomfort suffered by patients undergoing DI. From my own limited experience of being an NHS patient on page 30 I knew that feelings such as uncertainty as to what was going to happen, whether there would be pain or discomfort, how long the examination would take and the possible outcome can give rise to the physical and mental suffering which might provoke a compassionate response.

3.6.3 Radiographer-specific considerations

I became aware of the opportunity to harvest data from the online journal club discussion between radiographers outlined in section 3.4.5 which presented itself after ethical approval had been granted for the project. I was aware of debate in the literature as to whether ethical approval is required for data that is in the public domain, therefore I contacted the research ethics committee as a matter of professionalism and good research practice to ask for the chair's views as to

whether formal ethical approval was required for this opportunity to acquire data relevant to my project, or whether a courteous notification of my intention would suffice. I was able to assure the committee that data would be treated in the same way with regard to confidentiality and data security as that included in the current application. The ethics committee were satisfied that since the discussion was taking place in the public domain a formal application was not required. Nevertheless I ensured that potential contributors were made aware of my wish to use the discussion for my research prior to its taking place; participants were informed of my research interest and a guarantee given of confidentiality on the website and reiterated by me on Twitter before any tweets were posted, so I was able to reassure the committee that no deception had occurred. I did not take part in the discussion other than to inform participants that I would be collecting their tweets for purpose of my PhD and that these would be treated with confidentiality and respect.

3.6.4 Data assembly considerations

Participant confidentiality was always at the fore, with data collected solely by me. I removed all participants' personal details and assigned to patients a numerical identification code. Students were only identifiable by year group and radiographers not at all. Prior to transcription data from the recording devices were also anonymised and transcripts and field notes were kept separate from documents containing participant details. One matter that required consideration was that two of my supervisors were also on the teaching team and there was concern that students might feel inhibited from discussing or sharing information that they would not want their tutors to hear. I ensured that those two supervisors would neither be able to hear them, nor see any data transcripts. My qualitative supervisor is not a member of the radiography teaching team and was not acquainted with any of the students, nor they with her.

3.6.5 Data treatment considerations

Consent forms and all data were stored in both electronic and hard copy form. Participant information sheets were generic and contained nothing that might identify individuals. Names and contact details were securely stored in electronic form separate to the anonymised hard copy transcripts which were in turn stored

in a locked filing cabinet at my home. Anonymised audio files of the focus groups and interview recordings were sent for transcription using the university's secure file transfer system, with the resultant transcripts returned the same way to be stored on my password protected university laptop. These data did not contain personal details nor any way of identifying participants. For the interviews conducted in coffee shops, the white noise generated by the coffee machines that was so effective in preserving participants' privacy did present my transcriber with a challenge at times, but I was able to fill in any blanks or correct any misheard words. E-mail trails between participant and researcher were deleted and when the data were analysed, individual participants could not be identifiable. Audio recordings and any electronic and paper data which might identify participants were stored securely until the PhD thesis was completed and then accordingly deleted or shredded and disposed of using the university's confidential waste disposal service in accordance with university protocol. Data from the online discussion on Twitter in the #MedRadJclub journal club on May 19th 2016 were provided to me by the convenor of the discussion which I then anonymised by deleting the participants' avatars.

3.7 Methods

My choice of methods was consistent with a constructivist view of people as active makers of meaning through their interpretations of the social world in which they partake, a position attributable to the philosophy of Herbert Blumer (Blumer, 1969). Methods were chosen to ascertain patients', students' and radiographers' feelings and thought processes as well as what they had noticed and retained about the more observable aspects of their experiences. I made a note in my reflective journal to analyse my data, mindful of Silverman's observation that "people recipient-design what they say for particular audiences" (Silverman 2017, p149); an opinion aligned with a dramaturgical view of behaviour in which both interviewer and interviewee are acting out roles and presenting themselves in a way in which they believe relevant and appropriate (Goffman, 1959).

Interviews are widely accepted as a versatile tool for acquiring data (Braun and Clarke, 2006b; Charmaz, 2014); although Atkinson and Silverman have

remarked sceptically on the unquestioning ubiquity of an 'interview society' that superficially explores only experiences and perceptions (Atkinson and Silverman, 1997). In a later paper, Silverman suggests that little has changed, but his remark that the interview is a two-way interaction, not a one-way collection of information (Silverman, 2017) reminded me to be aware when analysing my data of social processes such as impression management: behaviours communicated or exhibited with the intention of inducing a desired response (Goffman, 1959). Focus groups, usually with around six people at a time are a way of exploring a specific topic in some depth with a particular interest in how individuals in the group interact and respond to each other's views, thoughts and comments; eventually creating a joint construction of meaning (Bryman, 2016). Freeman argues that using multiple methods confers richness in constructivist research (Freeman, 2006); drawing on this, and Blumer's techniques for assembling data (italicised), the following methods were chosen with the rationale discussed in more detail in the sections as numbered:

Interviewing and listening to people's conversations

- Individual semi-structured interviews with NHS ex-patients 3.7.1
- Focus groups with student radiographers 3.7.2
- Online journal club discussion between radiographers 3.7.3

Finding well-informed participants

- NHS ex-patients who had undergone diagnostic projection imaging 3.4.3
- Student radiographers who had been on clinical placement 3.4.4
- Radiographers in clinical practice 3.4.5

Blumer also advocated direct observation of social life; whilst this is not an ethnographic study, over thirty years spent observing and experiencing the complexity of actions and interactions in x-ray departments provided further rich material with which to inform the reflexive component of my analysis. As Strudwick writes:

"It is very difficult to explain how professionals behave or why they make certain decisions without seeing these in context." (Strudwick, 2011, p82)

I would make the same argument with regard to patients, whose behaviours sometimes mystify students particularly in early encounters on first placement and my own observations and reflections were a valuable asset in this regard.

With regard to interpretation of what participants communicate intentionally or otherwise, Kvale advocates field observations as a means of accessing nonverbal clues (Kvale, 1996), to this end I considered video- as well as audiorecording the interviews and focus groups. Eventually I decided against videoing, partly for reasons of practicality of moving and setting up equipment in the variety of locations in which they were undertaken and because of the heightened selfconsciousness and potential for impression management. In his seminal work, Erving Goffman writes of the 'performances' we conduct as if actors on a stage, presenting what we consider desirable and acceptable versions of ourselves, something which might arguably be exaggerated if a recording camera was present. Covert filming is clearly not an option in these days of ethical scrutiny and out of respect for the dignity and psychological welfare of my participants; indeed two were unwilling even to have their voices recorded let alone their interviews filmed. I chose instead a combination of listening again to the audiorecordings for verbal inflections and other auditory cues together with a reflexive analysis drawing on my notes and memos made both at the time and after data assembly, as well as my own experience as a radiographer, lecturer and, occasionally, patient myself.

All methods used were aimed at exploring individual and socially contextual beliefs, feelings, opinions and recollections in order to generate rich data which I could use to make inferences with regard to psychological drivers of behaviour such as motivation and emotions as well as social ones such as influences and pressures. I also considered communication: how the use of verbal and nonverbal cues such as tone of voice and body language might shape perceptions and in turn, the interaction. These enrich a qualitative analysis by generating the 'thick descriptions' described first by Gilbert Ryle and developed by Clifford Geertz (Ryle, 1968; Geertz, 1973) in which the researcher-analyst explores beyond the superficial 'thin' description of events reported to them and probes for deeper meanings and intentions.

In the interviews and focus groups I avoided closed questioning and took an open approach, starting with phrases such as "Can you tell me about..." and "How did/was ..." so that patients and students were free to take the question in any direction they chose. I was prepared to explore avenues of inquiry as and when they opened up with prompting questions such as "Can you tell me more about..." or, "That's really interesting, I wonder what..." Questions aimed at obtaining opinions were phrased as "Some people say that..." or "How do you feel about the idea that..." The medical context in which this project was undertaken comes with a terminology - some might say even a language - all of its own (Britten, 1995), this did not present too much of a challenge for the student and radiographer data assembly but talking to patients, some of whom had spent a considerable amount of time in the healthcare system, were experts in their own field, but not the wider field of medicine and I was careful to clarify terms to make sure we were not talking at cross purposes.

3.7.1 Semi-structured interviews

The interview schedule for the qualitative exploratory semi-structured interviews with NHS ex-patients can be found in Appendix 6. I chose to interview patients rather than run focus groups to reflect in my study the emphasis on patientcentredness in healthcare by hearing their individual stories and how they felt about them. Using qualitative interviewing techniques as described in the previous section allowed sensitivity to the interviewee in terms of their language, meaning-making and understanding of the events they described, and flexibility of the agenda according to the direction in which the interview was going. I found patients were willing to share quite openly, and for the most part un-selfconsciously, their feelings across a range of both positive and negative events, and a diverse range of attitudes, in particular to the question of whether compassion is actually essential to them when undergoing imaging. I was deliberately open in my questioning on this matter so that they could interpret it in whatever way they chose. My reflexive analysis took account of the human tendency to present a self that is considered socially acceptable (Goffman, 1959), but on the whole I was pleased that my patients appeared at ease and felt able to be frank in the slightly stark interview room. My interview skills and technique changed over the course of time, with my voice featuring less in the audio files

and transcripts in the later interviews than in the earlier ones; I attribute this to increasing confidence and willingness to sit with my participants, sometimes in silence while they collected their thoughts and probed their memories.

3.7.2 Focus groups

The focus group schedules can be found in Appendix 7. My choice of focus group discussions for the student participants was made in order to both hear and observe how as a group they constructed ideas around compassion from their observations of their radiographer clinical educators and role models. I tried to provide a supportive atmosphere where students could explore and sound out their individual ideas, beliefs and opinions with others in the group and feel safe to disagree and change their minds without any concerns that there were right and wrong answers. As a retired clinical radiographer I was also able to understand and relate with the social context of the placement from which they had just returned and they appeared largely comfortable with the conversation, although in Chapter 4 there is a quote regarding confidentiality which qualifies this claim. I chose focus groups over group interviewing for two reasons; firstly despite apparent similarities, group interviews tend to explore issues more widely, whereas I was interested in how students made sense of what they witnessed on placement with regard to compassion quite specifically. Secondly, Bryman argues that in providing a social context, focus groups are more reflective of everyday life (Bryman, 2016, p502). I had considered incorporating Blumer's technique of examining documents: student's reflective journals might have offered individual insights but lose the advantages of group discussion, namely bouncing ideas around, testing the bounds of acceptability (in professional attitudes as well as behaviours) and making sense of relatively abstract phenomena such as compassion. I believe that I succeeded in creating a psychologically safe setting; students spoke openly and freely and respectfully disagreed with each other at times, which produced rich, and at times eyeopening, even for me, data.

3.7.3 Online journal club discussion

Data from the Twitter discussion between radiographers of my literature review article in May 2016 were kindly provided by the convenor. My involvement in the

organisation of the discussion was minimal, although I was asked to supply three questions with which to guide it. With limited scope, the questions I supplied focused on radiographers' meaning-making of compassionate patient care, the practical considerations and tensions in day-to-day clinical work, and a wider question aiming to ascertain their professional and personal values. I felt that answers to these would fulfil the following aims:

- To learn about the language of compassion and how it is spoken by radiography professionals, in particular the terms they use to represent it;
- To observe from their tweets how they construct their ideas through discussion and debate;
- To compare and contrast their ideas around compassion in day-to-day clinical practice;
- To learn about what motivates radiographers with respect to caring for their patients and whether this motivation comes from within, i.e. their personal values, or from without, i.e. the values of the profession.

Based on these questions the themes (T) chosen by the journal club were:

T1 – What does compassion mean to you?

T2 – What facilitators/barriers to compassionate care do you encounter?

T3 – What matters to you personally when you think about your role as a health care professional?

Approximately one hundred radiographers and medical imaging professionals from the UK, Australia, New Zealand and Canada took part with 1,200 tweets generated in a spirited discussion.

3.8 Transcription of interview and focus group data

The ethical considerations of data treatment i.e. consent documents and protection of confidential details were discussed in section 3.6. I took guidance

from Huberman and Miles to ensure transparency and permit cross-examination by others, such as organising field notes into a legible and intelligible order, ordering and storing audio and paper files and transcripts (Huberman and Miles, 1994). The data were transcribed into Microsoft Word documents and stored on my university laptop's hard drive connected to my U:drive; the individual secure filespace stored on a central server which I accessed via the university's virtual private network. Back-ups were also stored on memory sticks which were stored securely at home. I considered transcribing the data myself in order to familiarise and immerse myself in them, but having done this in a previous mini-project, I knew how time-consuming it would have been. Aware of the larger amounts of data at the level of a PhD and having been fortunate to be in receipt of a small donation from a visitor to the medical imaging department who wished to contribute to research into patient care, I decided it was prudent to avail myself of the university's transcription service. I transcribed two interviews and one focus group myself to conserve funds and because two interview participants refused consent to audio-recording; in those cases the transcript consisted of copious notes taken at the time. I chose intelligent over verbatim transcription, which takes a common sense approach and includes all the relevant information but leaves out some, but not all of the filler 'ums,' 'ahs,' 'ers', and sometimes 'okays', termed 'response tokens' by Silverman (2017). Practically, this kept the cost within my limited budget and whilst I am aware of Silverman's concerns that it strips out nuances of the interaction which steer interpretation in one direction or another. the transcripts were not so 'tidied up' that I would have only been able to present simple products of participants' minds. I also had my notes and recollections to help me. Kvale argues that even verbatim transcription is a construction (in McLellan, MacQueen and Neidig, 2003) and Collins et al suggest that what is heard live and what is read when transcribed can be interpreted very differently. For example, hesitancies heard on the audio file can indicate a pause for thought, whereas when read in a transcript might be interpreted as uncertainty (Collins, Leonard-Clarke and O'Mahoney, 2019). Conducting the interviews and focus groups myself gave me the advantage of being able to feel more certain with regard to these subtle symbolic cues and I listened repeatedly to the audiorecordings as well as reading the written transcripts and my notes to satisfy myself of the authenticity of my interpretation of the data. I chose not to add any details of such information as age, gender, occupation and so on as I did not wish to skew my analysis by incorporating features of their identity which I felt were not relevant to the research question (Silverman, 2017).

3.8.1 Treatment of Twitter data

The data from the Twitter discussion came in the form of a pdf of tweets collated by the convenor. The initial document contained 402 tweets. Tweets not related to the themes I supplied were removed, as were retweets and those promoting or prompting further discussion. This left 142 tweets for coding and analysis.

3.9 Thematic Analysis (TA)

I chose to undertake what I have named a Constructivist Thematic Analysis based principally on the analytic steps first described in 2006 by Braun and Clarke (Braun and Clarke, 2006b) but drawing also on ideas from Helene Joffe and Kathy Charmaz (Joffe, 2012; Charmaz, 2014). The perspective from which my TA was conducted was logically derived from the assumptions which govern it; these were:

- 1. Whilst patients and students may have described what they regard as the reality of their situation and experiences, their interpretations of these are subjective, created in their minds in a process which combines experiences with internal cognitive schemata³ (Bartlett, 1932) which shape attitudes and beliefs and hence expectations, opinions and perceptions of the imaging examination. Other processes including past experiences, expectations and emotions also play a part (Gross, 1987).
- 2. The language used by patients, students and radiographers plays a significant part in their understanding, interpreting and meaning-making.
- 3. My orientation to what participants told me was reflective; I tried to notice what grabbed my attention and why what was intriguing, puzzling or

³The terms schema and schemata refer specifically to the psychological construction of an understanding of the world first described by Piaget, in which early experiences provide building blocks of experience assimilated and accommodated over time.

interesting. I saw this as my own sense- and meaning-making of theirs, aiming ultimately to construct a conceptualisation of compassion.

4. Both the researcher and participants perform interpretive roles in the research.

Although not without its critics, TA is a well-established data analysis technique (Holton, 1975)⁴. Clarifying my research paradigm was the first step in addressing perceived shortcomings of TA's pan-theoretical flexibility which, although seen as a strength in terms of versatility is perceived as a weakness when there is a failure to state the position from which it derives. Braun and Clarke note other criticisms including a lack of sophistication and limitation to descriptive analysis only (Braun and Clarke, 2014). They concur with Bazeley who proposes that the analyst explore relationships between themes and how they interact so that ideas can be integrated to higher levels of abstraction (Bazeley, 2009). Bazeley also suggests looking for data that contradict a majority or common-sense view; an example of this was found in the responses to my question to patients and students about the need for compassion in every encounter which was based on a debate in the medical ethics literature (section 2.4.3). I aimed to provide an account of the data using evidence in the form of data extracts in order to answer the research questions and make claims in relation to the literature. I conducted a partdeductive analysis with latent coding in order to link my findings to the definition of compassion I had chosen from Aristotle; in particular the notion that compassion involves a judgment as to whether the suffering individual deserves it, which is absent from many dictionary definitions. Coding was also derived from existing literature and theory, and from my understanding of some of those meanings of participants' experiences not explicitly stated. An example of this

-

⁴ In 1975, Gerald Holton published a paper expounding a role for thematic analysis in science. He proposed that science could be conducted in an alternative manner to the prevailing linear one of the time: "The themata that appear in science can, in our very rough analogy, be presented as lying along a dimension orthogonal to the (xy) plane in which verification and falsification can take place, hence somewhat like a z axis rising from it. While the xy plane does suffice for most discourse within science in the sense of a public, consensual activity, it is the three-dimensional (xyz) space which is required for a more complete analysis -whether historical, philosophical, or psychological - of scientific statements, processes, and controversies" (Holton, 1975). Holton goes on to state: "It is indeed one of the great advantages of scientific activity that in the xy plane many questions - for example, concerning the "reality" of scientific knowledge - cannot be asked. Only when such questions were ruled out of place in a laboratory did science begin to grow rapidly."

can be seen in the code entitled Production Line which was only mentioned explicitly by a few, but other terms were indicative of a similar feeling and experience. A part-inductive analysis with semantic coding derived from the data was also conducted (Braun and Clarke, 2006b) in order to permit the themes constructed to be linked closely with the data. Conducting a part-inductive analysis also helped remind me to retain a reflexive awareness of any preconceptions that might influence my analysis of the data. The steps involved are shown in Figure 5.

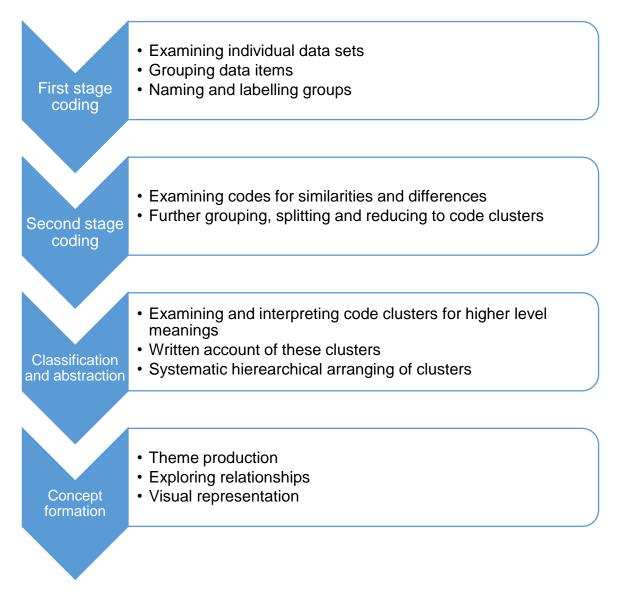


Figure 5: Schematic diagram showing phases of analysis

Having consulted several qualitative methodology textbooks and qualitative theses I could see that whilst the outcome of a qualitative analysis broadly consists of overarching and subordinate themes, writers vary in the level of detail

and quality of explanation offered as to how they arrived at their themes. Ultimately though, analysis is a process of moving from a descriptive grouping of data deemed of relevance to the research question to a meaningful but more abstract interpretation of what the data are saying that answers it.

3.9.1 First stage coding

In accordance with Braun and Clarke's method I began by reading through and familiarising myself first with patients', then students' and finally the radiographer data. This soon generated initial ideas, and I noted down questions that arose in my mind (Braun and Clarke, 2006b, p87). I tried to work out what all my participants were trying to communicate and, rather than taking what they said at face value, to think about what might underpin their interpretations of their experiences. This was easier sometimes than others, for example when, as I discovered when coding, comments permeated the entire dataset to the effect that the radiographer "had a job to do" without further elucidation. Often items of data were coded at multiple nodes in order to capture as wide a variety of elements as possible that might have been useful in later analysis. I found Charmaz's suggestion of coding with gerunds (Charmaz, 2014, p120) a helpful way of thinking about the meanings and actions in the data. For example examining the data in a code entitled 'Interpreting non-verbal cues' prompted the observation that some non-verbal cues were easier to spot than others, from the very opaque to the apparent. Charmaz's suggestion that the researcher think about "what is going on in the data" helped me to go beyond straightforward descriptions of events to more interpretative questions around what processes, relationships and explanations lay within the data. The results chapters contain quotes from participants which constitute the evidence for the codes and enable readers to judge for themselves my interpretation of the data. Also in this stage ideas for what I could take forward from the analysis into the discussion and recommendations were already beginning to develop and were recorded in my research notes.

I annotated the transcripts, picking up on remarks or opinions that I thought were of interest, noticing similarities and differences in the data and what surprised me. I went through each transcript in turn and grouped data giving titles or labels to the groups that reflected what I thought was going on and added further notes

memos and ideas. An example of this can be found in Appendix 8 where I show how I coded for 'Understanding'. Coding was undertaken systematically across separate interview, focus group and Twitter discussion data sets. I found the tweets the most challenging to code; the discussion moved very fast and soon became fragmented and decontextualised, resulting in the meaning of some tweets being difficult to interpret. This issue has been highlighted elsewhere in the radiography literature (Currie et al., 2017; Bolderston et al., 2018) and research also suggests that thread-based discussions risk creating misunderstandings (Lin and Tian, 2018). Despite these disadvantages I felt that the advantage of a wide audience reach outweighed them, with radiographers from the UK, Canada, Australia and New Zealand engaging in a spirited, thoughtful and respectful discussion which generated rich data consisting of affective (emotions and feelings) elements as well as attitudes, beliefs and opinions.

Next I reviewed the codes to interpret how they might be grouped. Naming and labelling these groups was more challenging than I thought, and felt at times quite unsophisticated as I grappled with my decisions, finding that it was better to use terms close to their collective meaning, even if these were clunky and graceless rather than trying to come up with something elegant and succinct right there and then. The majority of my codes were data-derived, relating directly to what participants had told me, although some codes were researcher-derived, particularly those codes generated later in the coding stage when my thoughts and ideas were beginning to crystallise. An example of a researcher-derived code was 'Where is compassion located?' with four child nodes containing data suggesting it could be found in the individual practitioner, in the interaction between practitioner and patient, in the culture of the department or as an aspect of professionalism. Other codes were derived from my review of the literature; an example of this was seen in responses to questions of whether compassion can be taught, discussed in section 2.4.4. I undertook complete coding in order to look for anything and everything of interest rather than selecting for instances of compassion (Braun & Clarke, 2013, p206). This meant coding the entire dataset, but not necessarily every item within it, only those I deemed relevant to my research questions. This helped me address a key issue I discovered in conducting interviews and focus groups, namely the challenge of keeping interviewees on track and answering the question I had asked them, rather the one they wanted to give me. Time and again, participants added tales of interactions with other health professionals and other imaging examinations such as CT and MRI, which, whilst interesting, did not meet one of my stringent criteria: that of the brief interaction time unique to a single projection imaging examination (x-ray). I did, however create codes such as 'Non-radiographic examples of compassion' into which I dropped data that may have been pertinent further into the analysis.

3.9.2 Use of data analysis software

Whether to code the data manually or use a computer-assisted qualitative data analysis software (CAQDAS) programme is a matter of debate; Braun and Clarke are not alone in their preference for a method of coding and theme construction where data in hard copy form are physically cut, moved around and marked with coloured pens and highlighters. Like Charmaz, they note the potential risk of focussing too readily on quantity instead of quality when examining the data, particularly when using CAQDAS. Proponents of CAQDAS note the advantages of speed and efficiency in the coding and retrieval process and I came round to this idea with increasing confidence as I became more familiar with both the data and codes generated, mindful also that in using CAQDAS I was generating evidence for a transparent and systematic data analysis. I was convinced also by Coffey's argument that it is the uncritical adoption and use of software rather than the software itself that is problematic (Coffey, 1996), and eventually chose to use NVivo 12 supplied by the university which would allow me to systematically code and develop themes. The assumptions embedded in CAQDAS programmes mean that the software tends to be better suited to objectivist qualitative research (Charmaz, 2000; Braun and Clarke, 2013, p219); I saw how running a query in NVivo might resemble a content analysis and resisted the urge to attach any more significance to data items that recurred frequently than to those that felt powerful or meaningful. Reminding myself to think hard about the language used when coding mitigated for this and I noticed how with practice I moved from a quantityto a quality- based vocabulary when thinking about my data. I did not ignore a quantity-based analysis entirely; for example if a particular point recurred in the

data I explored the responses around it, noting the context in which they appeared (Braun and Clarke, 2006b) and asking myself why so many people appeared to be saying the same thing. I noticed how coding felt as though data were being fragmented and stripped of context, and was appreciative of the fact that I was not carrying out a secondary data analysis; as interviewer and analyst I could cast my mind back and consult my field notes to regain any lost context. Bryman notes the argument that coding and retrieving in NVivo means a loss of the communicative aspects of focus group discussions (Bryman, 2016, p603) so I created a code entitled 'Harmony and Conflicts' so that I could see where data clustered around points of agreement and disagreement.

3.9.3 Second stage coding

After a systematic first coding of each interview and focus group transcript and the Tweets from the journal club discussion, I ended up with 88 codes in NVivo, at which point I ran into technical difficulties with the programme. These took much longer to be resolved than hoped and while waiting I began a process of creating Word documents for each code, in which I went through the data extracts and made notes and memos about what I thought the data were suggesting, or perhaps asking. These were informed by field notes taken at the time, listening again to the audio files for cues in paralanguage⁵ and prosodic⁶ features of speech. Tone of voice, inflexions, pauses and silences communicate ideas, emotions and states of mind and I coded for these latent aspects of the data drawing also on my clinical experience to further understand them. For example, a patient remarking on a lack of privacy and dignity afforded to them on one occasion conveyed heavy sarcasm in their tone of voice when they stated "I'm surprised they don't give you barium enemas in the corridor as well" (P25) - I knew exactly what this patient meant; it typified patients' experiences of a service suffering from a lack of resources to accommodate their needs; in this case for privacy and dignity.

_

⁵ Paralanguage includes rate, pitch loudness and speaking style.

⁶ Prosodic features of speech include rhythm, intonation and stress, the latter particularly useful in appraising strength of feeling in a participant.

3.9.4 Classification and abstraction

Departing for a time from NVivo, I printed the 88 codes and began examining them, looking for overlap and distinctions between them in order to reduce and condense them in a move towards theme development. Some consisted of almost identical data items and were easily grouped; the 'Competence' and 'Technical' codes were one example, suggesting a narrowness in the use of the term competence in radiography to mean how skilfully the image is acquired, rather than competence in other aspects of patient care such as interpersonal and communication skills. Others were quite clearly distinct such as the code for judging/judgmentalism where there were no overlapping data with any other code. The majority though contained data that could be grouped in a variety of ways and it was this that took what felt like an inordinate length of time, being both daunting and frustrating in equal measure and taking weeks to accomplish. Nor was the process always forwards-moving, with repeated reshuffling of the codes and, probably most difficult of all, trying to decide what these nearlythemes were: processes, relationships, procedures and perceptions being examples of the lexical challenge I faced in trying to classify and abstract my codes.

In order to add depth to my interpretation I also looked for metaphors in the data. For example, coding for light and dark melded physical aspects of patients' experiences with mental ones; x-ray rooms are gloomy places, a necessity for accurate focussing of the x-ray beam which requires that radiographers shine a light on the body part in question, but not conducive to lightness of mood, levity or optimism for the patient. Darkness is also seen in the metaphor as the type of humour used as a coping strategy for radiographers to manage difficult feelings and emotions (Strudwick, 2012b).

3.9.5 Concept formation

Once the technical issues mentioned previously were behind me, I used the capability of NVivo to record the sources of the data within each code so that it was then possible to make a comparison of themes and illuminate similarities and differences between patients' students' and radiographers' perceptions of what compassion meant to them. An appraisal was then possible with regard to

matches and mismatches between what patients want and what students are learning to deliver with regard to compassionate care.

Having completed two cycles of coding, the process of identifying patterns across the data began. This involved looking for ideas, topics and concepts which occurred to me on re-examining the data within each code and starting to generate novel ideas and questions which would later be integrated into the findings and discussion sections. This process also reassured me that my previous concerns (section 3.9.1) that coding in NVivo stripped the data of meaning and context were unfounded; taking the codes and their associated data and constructing themes and sub-themes imbued them with my own meaning-making and contextual interpretations; the very essence of a constructivist TA.

3.9.6 Notes and memo writing

I began making notes from the beginning of the PhD, first with a research diary, which documented thoughts, developing ideas and progress made. During interviews and focus groups I made field notes including my observations of nonverbal and paralanguage cues, although these were scrappy and disjointed at the time. I also wrote analytic notes and memos consisting of ideas and possible codes. I created a large visual display consisting of post-it notes with snippets of thoughts, ideas, and possible avenues of exploration; these could be moved around as the thesis took shape.



Figure 6: Visual display of themes under construction inspired by Thesis Whisperer

The analysis phase was augmented with my notes and reflective memos in a recursive moving back-and-forth between data, codes and themes. These notes helped me define the properties and characteristics of codes, concepts and, later, themes and sub-themes. I also made memos relevant to my own professional clinical and academic practice, which was helpful in putting together patient and practitioner data which might otherwise have appeared irreconcilable or even nonsensical to the uninitiated. Notes and memos were also essential to the reflexive component of the analysis, particularly in helping me be aware of any preconceptions or misjudgements.

3.10 Chapter summary

In this chapter I began by outlining the rationale for the research derived from the literature synthesis. This confirmed my position presented in the first chapter as a qualitative researcher and I then discussed the constructivist paradigm within which lie the philosophical and epistemological roots of this research. Details of

data assembly and analysis procedures followed, including discussion of alternative methods and the reasons for my eventual choices. I included the criteria which can be used to help the reader judge the quality of the findings described in subsequent results and discussion chapters. A constructivist methodology sees the individual and the social in interaction where the truth of compassion is contextual and co-created. The researcher is part of this process and the reflexivity integral to this will permeate the discussion and conclusion chapters. The next chapter introduces the results of the study and the following three chapters present these under three main themes and sub-themes.

Chapter 4: Findings – an overview

The purpose of this chapter is to introduce the three overarching themes constructed from analysis of the assembled data. Each theme is presented subsequently in its own dedicated chapter. This chapter also provides information and abbreviations to aid the reader's understanding of how supporting data are presented and participants distinguished whilst retaining their anonymity. The thematic chapters are followed by discussion and conclusions chapters which draw the themes into a coherent conceptualisation of compassionate patient care in DI together with some implications of the findings and recommendations for research and practice.

A chapter on the findings of a research project that claims to embrace constructivism is somewhat problematic in that what is found implies something pre-existing that has been uncovered or discovered, whereas the contents of the following chapters are a construction of a way of thinking about compassion in DI. I considered the term 'outcomes' but, aware of its unconventiality I decided to retain use the term 'findings'.

In order to maintain my respondents' anonymity, the supporting data when cited refer only to a number allocated to the interview participants who were all expatients (P). Numbers also delineate the year group of the focus group participants (FG), the majority of whom were students, but in one were post-graduation recently qualified radiographers. The data from the radiographers' Twitter discussion are identified using the term RadTweet.

Ex-patients interviewed:

P- followed by a number e.g. P01 = ex-patient interviewee #1

The findings, discussion and conclusion chapters refer to ex-patients as, simply, patients so that the reader may find the writing more eloquent, and pleasant to read. The ethics committee who approved my application to conduct this research can be reassured that, consistent with the proposal, no patient currently undergoing NHS treatment was interviewed for this project.

For the student focus groups

FG1 = Stage 1 (first year placement) focus group

FG2 = Stage 2 (second year placement) focus group

FG1+2 = Stage 3 (third year placement consisting of the same group of students as the first and second year placements) focus group

FG3 = Stage 3 (third year placement but a different group of students to those in the FG1+2) focus group

P-G FG = post-graduate recently qualified radiographers focus group

Radiographers

RadTweet = tweets from radiographers taking part in the MedRadJClub discussion on Twitter as described in section 3.4.5

<u>Other</u>

I = interviewer (me)

R = respondent

Some focus group and Twitter data are presented in such a way as to illustrate how students and radiographers discussed a topic. The symbol // between each contribution distinguishes individual participants within a discussion.

Placement sites have been anonymised with a number, e.g. Placement 3 as even initial letters give some clue to their names. Any negative experiences, or opinions could not therefore be traced back to a placement or the people who work there.

I deliberately chose not to identify individual students any further even by a simple numbering of individuals as there was, despite my assurances of confidentiality, a reticence to speak out for fear of comeback. This is somewhat disconcerting given the heavy emphasis on confidentiality in both the clinical and academic settings but students' concerns were reflected in the following quote:

"I think from day one in [Placement 1], I worked out that you kept your mouth shut and you didn't say too much because I heard all about the first year students that went there and there was like stuff that was discussed in the University that's meant to be confidential had somehow got back to the hospital and they knew all about that. Who was saying this and who was saying that so that's why I'm a little bit apprehensive to..." FG2

I also present raw data in the findings so that the reader can decide for themselves whether they agree with my interpretation of the data and construction of themes. One of my key aims in presenting this thesis is to enable the reader to feel confident about the quality of the work by allowing research participants' voices a place in the reporting of the results and subsequent discussion, consequently direct quotations are presented in the results chapters to justify my themes. Kitzinger advises a researcher writing up the results of their analysis to include quotations from more than one participant at a time (Kitzinger, 1994). Quotes from participants are presented with quotation marks and in italics, and where the reader would find a quote difficult to understand on its own, clarification is incorporated in non-italicised font in square brackets thus:

"It can, again, you've gotta know how to use it [patient was referring to the use of humour] and you gotta know, right, that's gonna work."

The themes and sub-themes constructed from the analysis are shown in figures 7 - 10. The main theme can be seen in figure 7 and subthemes in figures 8, 9 and 10.

 Perceptions of a quick procedure •Technical competence and emotional responses in 'the job' of image acquisition Compassion in the radiographer-patient interaction Components of · Finding compassion in the mechanical and taskcompassion which can based features of radiography be seen and felt during a DI examination The quality of authenticity in a radiographer and patients' impressions •Radiographers' skills in interpreting cues and adapting communication skills ·Qualities and skills in understanding and relating to The qualities, skills and the patient attributes associated Learning and developing qualities and skills in a with a compassionate process of becoming a compassionate radiographer radiographer Values of the individual and the organisation Humanity and human connection ·Kindness towards self and others Principles underpinning compassion in DI

Figure 7: Main themes and subthemes

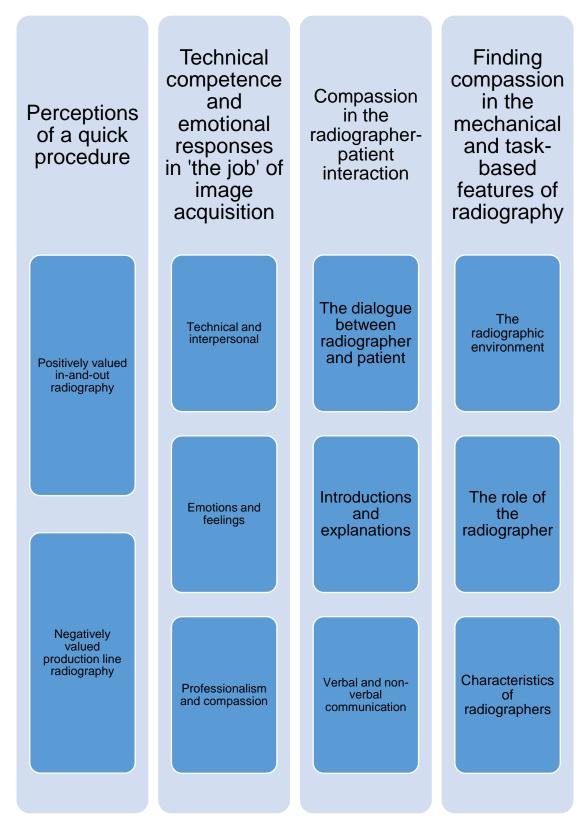


Figure 8: Components of compassion which can be seen and felt during a DI examination

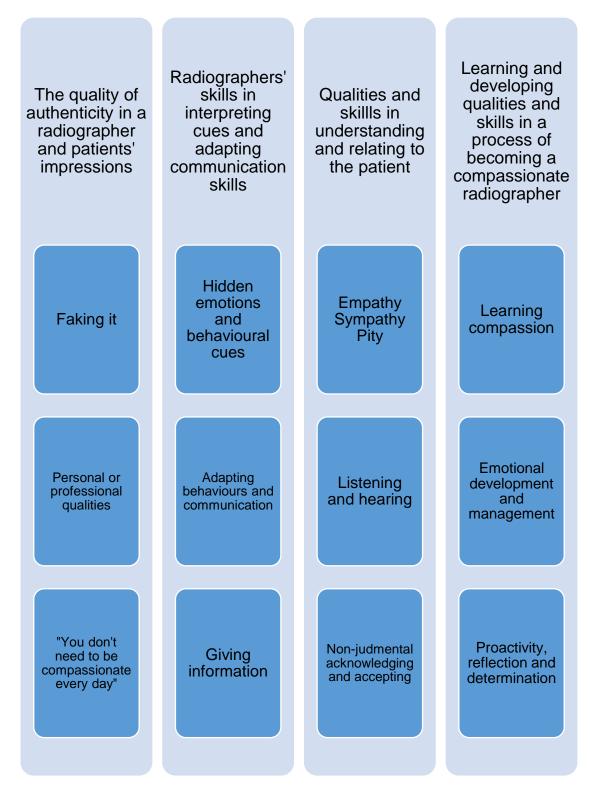


Figure 9: Qualities, skills and attributes associated with a compassionate radiographer

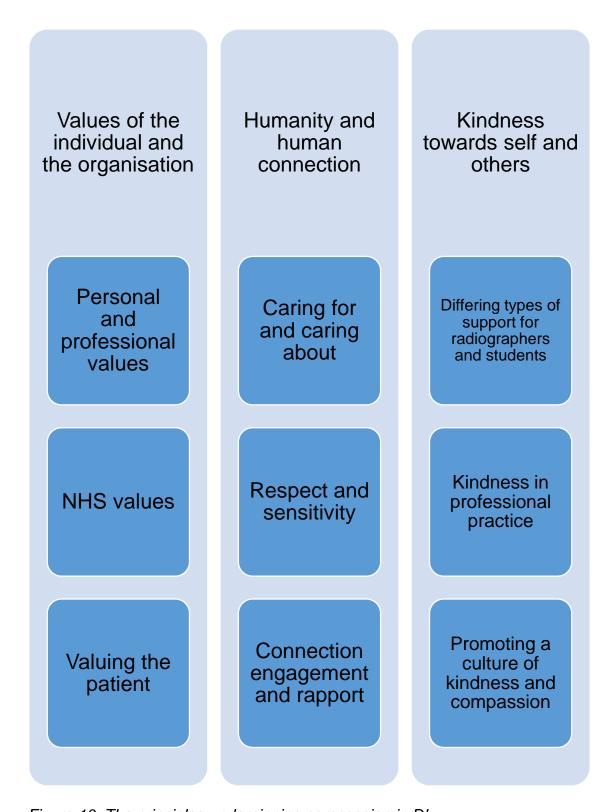


Figure 10: The principles underpinning compassion in DI

Each of the following three chapters is dedicated to the themes and sub-themes in figures 8, 9 and 10.

Chapter 5: Theme 1 - Components of compassion which can be seen and felt during a DI examination

5.1 Introduction

The purpose of this first results chapter is to present those constituents of compassion that are apparent and detectable to students, patients and radiographers during the diagnostic imaging procedure. These may be expressed, observed, noticed, sensed or perceived. The theme blends the technical and interpersonal features of the imaging encounter and presents these in the context of four sub-themes:

- 5.2 Perceptions of a quick procedure
 - 5.2.1 Key findings
 - 5.2.2 Positively valued in-and-out radiography
 - 5.2.3 Negatively valued production line radiography
- 5.3 Technical competence and emotional responses in 'the job' of image acquisition
 - 5.3.1 Key findings
 - 5.3.2 Technical and interpersonal components
 - 5.3.3 Emotions and feelings
 - 5.3.4 Professionalism and compassion
- 5.4 Compassion in the radiographer-patient interaction
 - 5.4.1 Key findings
 - 5.4.2 The dialogue between radiographer and patient
 - 5.4.3 Introductions and explanations
 - 5.4.4 Verbal and non-verbal communication
- 5.5 Finding compassion in the mechanical and task-based features of radiography
 - 5.5.1 Key findings
 - 5.5.2 The radiographic environment

- 5.5.3 The role of the radiographer
- 5.5.4 Characteristics of radiographers
- 5.6 Summary of theme

5.2 Perceptions of a quick procedure

5.2.1 Key findings

- ❖ A swift procedure is valued by patients, although a question arises as to the optimal length of examination time;
- Students and radiographers see a speedy procedure as compassionate whereas patients do not;
- Speed comes at a cost to compassionate care with depersonalising connotations of a production line culture;
- The metaphor of a production line augments research which has identified a 'hurrying culture' in radiography;
- Speed and efficiency are two constituents of professionalism.

5.2.2 In-and-out radiography

This analysis confirmed previous research which characterises DI in terms of the sometimes exceptionally short interaction time that patients spend having their imaging examination (Strudwick, 2011; Strudwick, Mackay and Hicks, 2011; Hayre, Blackman and Eyden, 2016; Reeves, 2018). Patients frequently reported that their first impression of their examination was how quickly they were imaged, but this was in accord with a wish to be seen and examined without delay:

- "...'cos I wanted to get my results and move on with the process so I appreciated the fact that we were whistling through it..." P15
- "...so I was quite relieved, actually, to be able to just walk in and walk out." P22

The feelings of relief reported suggest that patients did not feel mere impatience, but for some, a measure of anxiety. In their focus group discussions, the recently qualified radiographers agreed that it was compassionate to do what they could to minimise the time spent in psychological as well as physical discomfort:

"... then the patient is confident (yea) in you... because they (many voices talking)
... sufficiently as well then ... get them in and out without being uncomfortable ...
then that's also compassion for the patient" P-G FG

Interestingly though, patients tend not to see efficiency as a component of compassion; when asked if an x-ray is done quickly and proficiently, they saw that as part of compassionate care or something separate, this was a typical response:

"I think I see it as separate. I see it as separate..." P22

Since the turn of the century there appears to have been a shift in attitudes to what is important to patients in radiography, from good communication skills to speed (Reeves and Unett, 1999; cited in Booth, 2008). Research from Hayre *et al* indicated that patients were valuing speed ever more highly (Hayre, Blackman and Eyden, 2016). Their conclusion was based on radiographers' perceptions and the patient data in this study confirms this. A report from the King's Fund indicated that waiting times are high on the list of reasons for dissatisfaction with the NHS (King's Fund, 2019), although this may refer to the time spent waiting for tests, investigations and treatment rather than the time spent undergoing them; my patient participants commented on both. Whilst it might suit both patient and radiographer to strive to shorten the time spent being imaged as well as meet NHS targets, the deleterious effects of meeting this demand were noticed and felt by students, radiographers, and patients:

"...you're in there for such a short space of time, aren't you? It's come in, get your gown, go there, do that, get on...next please. They don't have the time, do they?"
P19

"I had an awful experience where a lady with cancer, I was helping her put her shoes on and she was starting to talk to me about something but the radiographer I was with, said, you know, she was 'get out, get her out', and it was horrible and the lady caught this interaction and I had to [say] 'sorry', and she was, she kind of understood but it was horrible." FG1

Perceptions of a lack of time co-occur in the data with those of a speedy interaction, with numerous references made to a busy department or radiographer. These data reinforce what is already known in the literature, namely that workload pressures are seen as key contributory factors to a busy department; these impact not only on patients' perceptions, but also on students in terms of the opportunity to develop and hone their radiographic skills:

"...so very busy, they don't have a lot of time to set aside and let you have few goes at it. It's was very...it's too busy." FG2

"I feel sometimes radiographers don't always have...I'm not saying they don't listen, I don't think they've got time to listen." P25

Behavioural and non-verbal cues of radiographers signifying an air of busy-ness and a lack of time were reported by patients and students. Students noticed also irritation and impatience in radiographers but this was not reported by patients, who were instead left with feelings of having been unduly hurried through the examination:

"Some radiographers get irritated, you could tell: when I start talking to the patients or just taking my time helping them get back to normal and things and you could sense they were...or they would start setting up the room around you... and you thinking, hang on... You could sense that irritant; that was an irritation." FG2

"I couldn't believe how quickly it was all done and dusted and I feel afterwards, they say, 'that's it, thank you very much,' and then you're sort of left, ... I did think about people who aren't so able to manage ... they could have spent a bit longer on the ending." P33

These data paint a complex picture of, on the one hand, a compassionate scenario in which the needs of both patient and radiographer for a swift procedure are both met, but on the other, one in which both are left feeling rushed and hurried. Whilst the increasing speed and throughput might seem to confer mutual

benefits, too short a time spent with the patient can compromise compassionate care. Some of the patients I spoke with disliked any sense that they were being rushed or hurried through their examination:

"I must admit when they first said, 'right, go along to X-ray, follow the coloured line', I was thinking, 'oh, gosh', 'take this gown with you, go into the cubicle, press the bell', I thought, 'okay, okay'..." P05

"And I tell you, the worst thing about it was when I was trying to get my shoes back on and I felt like I was having to rush and ...and it was just, 'I can't do this any quicker, love; 'cos my feet don't do what they're supposed to do necessarily', so it was just a bit...I do feel like I was rushed." P07

Students and radiographers noticed it too:

"A lot was [sic] friendly, talkative but a lot were just coming, so fast with the X-rays, get in, get out and that and some didn't even talk to the patient..." FG2

"Increased demand & faster DR units increases department throughput, but reduces rad/patient contact time." RadTweet

Whilst the combination of speed with a lack of feelings of being hurried are important to patients, they do not regard this as compassionate whereas some radiographers do. When the delicate balance is not struck between objective perceptions of speed and subjective feelings of a calm and relaxed procedure, patients, radiographers and students all notice. The depersonalising effects of this on patients are explored in the next section through the metaphor of a factory or processing plant.

5.2.3 Production line radiography

The conflicting desire to be seen and imaged quickly whilst being left with a feeling that they were not rushed through can be viewed through the metaphor of a factory production line, although terms differed, examples being 'cattle market' (P02) and 'conveyor belt' (p25) with the radiographer described as "robotic" by a number of patients. This was also noticed and remarked upon by students:

"...that's my biggest problem with X-ray department, too much of a conveyor belt attitude and it's not your fault, it's not the fault of the radiographers.' It's the fault of the system" P25

"[Placement 3] is a production line, and it really is a production line, there is no....even the qualified radiographers, don't really see them talk to a patient half the time ... Not more than, more than confirming who they are, checking the body part and that's it: off you go. [Placement 10], they just have a bit more time" FG3

The shared desire of both patients and radiographers for an expedited procedure comes with the risk of perpetuating what Challen *et al* have identified as a "hurrying culture"; in which time pressures lead to sub-optimally performed examinations (Challen, Laanelaid and Kukkes, 2017). Incorporation of the production line metaphor from these data provides enriching detail to this idea. The metaphor is also useful in illustrating the complexity of the issue; although most participants saw a production line as contrary to compassionate care, some patients' testimonies suggest their feelings of being on a production line fitted with their expectations and was a price worth paying for an expedited procedure:

"So what...I'm trying to think how to phrase that. It's... I didn't feel like I was on a conveyor belt but, or rather I did, but I didn't mind." P08

"I felt like I was on a production line but it was within minutes that she came for me and I appreciated that because I wouldn't have like to have sat there very long." P29

Patients' and students' observations which did not lead to negative perceptions of being rushed, hurried or on a production line coalesced around establishing a human connection and appearing relaxed and calm:

"...you don't really need to spend a lot of time, just, sometimes just the way you look at the patient, looking in the eyes and give a smile. This is just enough for a patient, yeah." FG3

"Very relaxed, professional approach. Not hurried. Answers questions as they go along. Didn't take too long." P17

Although appearances of calmness appeared to be associated in some patients' minds with professionalism, more commonly linked were perceptions of a business-like efficiency:

"It's fairly business-like, very business-like, fairly professional, very professional, very business-like, friendly but, you know, she had a job to and she was going to get it done efficiently and explained exactly what she was going to do, did it and then explained..." P03

"Certainly the efficiency was a good thing. She was...she knew exactly what she was doing, she knew exactly how to achieve it. She was professional..." P08

Studies exploring perceptions of professionalism in radiography are yet to reach a consensus with regard to a shared understanding, although its meaning can be broadly generalised to include attitudes, behaviours and values (Strudwick, 2014a; Challen, Laanelaid and Kukkes, 2017; Nortjé and Hoffmann, 2018). Not mentioned by these researchers but seen in these data is a suggestion that professionalism is associated with a timely and proficient yet unhurried encounter which leaves patients feeling satisfied:

"It was efficient and I don't feel that I was handled in a discourteous way or anything like that. It was professional and it was speedily done and I wasn't disappointed" P22

Feelings around production line radiography are largely negative, but were reconciled in the minds of some patients as the price to pay for an efficient procedure. Speed and efficiency, but not compassion, are linked with professionalism in the minds of patients. The next section explores in more depth how these relate to compassion in the course of the imaging encounter by dissecting and examining the technical and interpersonal elements of what was frequently referred to as 'the job' by participants from all three groups in this study.

5.3 Technical competence and emotional responses in 'the job' of image acquisition

This subtheme was so named because of the many mentions of 'the job' and 'getting the job done' although its meaning was never clarified.

5.3.1 Key findings

- 'The job' is regarded by students and patients alike as primarily the technical aspects of competently acquiring an image, although some radiographers use a more holistic definition that includes the patient;
- Competence is linked with speed and efficiency in the minds of patients;
- Prioritising speed and efficiency may distract radiographers from attending to physical and psychological needs of the patient;
- Competence and proficiency in radiographers inspire confidence in patients;
- Patients differ from students and radiographers in their views about competence and compassion
- An idea of compassionate professionalism has been constructed from these data.

5.3.2 Technical and interpersonal components

For patients, the primacy of the technical elements of image production denoted the job:

"... Well, first and foremost it's [patient was commenting on what he regarded as the most important characteristic of a good radiographer] getting the job done, so it's technical – the technical has to be – strong technical has to be paramount

<slight laugh> no point in having a lousy x-ray but a lovely time <laughter> I'd prefer to have a lousy time but actually a damn good x-ray" P01

"...technically competent, get the job done, get you in and..." P04

For undergraduate students, 'the job' was also strongly associated with the technical elements of acquiring the image, with no mention made spontaneously of compassion or care:

- "...need technical proficiency, get the job done, get the patient in..."FG1
- "...just need to get the job done and get the patient..." FG3

This is well established in the radiographic literature (Andersson *et al.*, 2008; Sim and Radloff, 2009; Lundvall, Dahlgren and Wirell, 2014; Challen, Laanelaid and Kukkes, 2017) and these data confirm previous findings. When students returning from placement spoke about competence it was exclusively in terms of technical skills and abilities to produce an image, but with a focus on feelings of shock, frustration and dismay at unmet expectations around their ability, and lack of a sense of mastery, achievement or progression. These data show that students' perceptions of what they thought they were training for appeared to be primarily a practical and technical role:

"Gets better, better through just relentless practice after practice after practice so you come to the end of placement and you have improved but you don't feel like you've really got to grips with all that much. You haven't mastered anything and it's quite frustrating, you feel like you haven't achieved very much." FG1

"You don't know how to use any of the machines either and so, it's...you're learning everything from the ground. You're completely useless and... I felt kind of stupid and intimidated, like I was in the way a lot..." FG2

Even by the third year, students were still talking in terms of radiographic technique and positioning with still no mention of compassion prior to the question aimed at prompting them to think about it:

"More autonomy, more responsibility and you're starting to ... but more kind of vulnerable patients, more difficult patients, a lot more modification, so I think it

really does help seeing a full range of patients and not just get the easy patient that can very much position themselves, so I think that was the developments in third year placement, as opposed to second year. Second year seems like setting the foundation of all your practical positioning and third year, I think, is really solidifying, make sure you've got everything down and make sure you can do everything, even with modification." FG3

Both recent graduate and expert radiographers took a more holistic view compared with undergraduates as to what 'the job' entailed and there was a recognition that interpersonal as well as technical skills mattered:

"I suppose the job is as well as getting results, it's about interaction with patients... Patient care... It's the most important aspect in a lot of ways" P-G FG

"Beneficence = execution of technical + emotional best. Pts are more than the sum of their body parts" // "Exactly competent [radiographer] is more than technical" © RadTweets

In DI, it is now clear that for patients and students 'the job' refers to the technical elements of image acquisition, with competence identified as an important feature. Students are preoccupied with mastering the skills associated with acquiring the image but by the time they are qualified, the patient as a person is coming into focus. Although compassion still did not feature in the data until prompted, references to patient care made by both recent graduates and experienced radiographers were notable for the inclusion of the patient-practitioner interaction and awareness of emotional needs of patients which were absent in the undergraduate data. In the next section, the impact on patients' feelings and emotions of their perceptions of a competent radiographer are presented.

5.3.3 Emotions and feelings

Appearances of competence in the radiographer inspired feelings of confidence in patients. Although patients did not specifically mention feelings of anxiety, use of words like 'reassuring' and 'safe' were interpreted to mean that instilling confidence had the effect of allaying patients' fears and anxieties:

"It's obviously to know their stuff, to feel confident in their skill base and this person definitely was... I felt safe in their hands" P11

"as she'd taken each X-ray and she did do a couple, said, 'that's not quite right,' so I guess she must have been able to view them as they were taken so that was quite reassuring that you knew when you left that she'd got all the images she wanted and she wouldn't send them down and then you get a letter a week later saying they weren't right, you know, so I felt confident... P24

Competence was highly valued as illustrated in the previous section but is also clearly and positively linked in patients' minds with efficiency and speed, and was a further contribution to feelings of confidence:

"Certainly the efficiency was a good thing. She was...she knew exactly what she was doing, she knew exactly how to achieve it. She was professional and, just, very... but clearly very, very, good at her job." P08

"Yeah, and I guess because it was efficient...it was doing it very quickly, you felt that he knew what he was doing. Yeah, there was no faffing round, there was no having to look things up..." P12

However these data also sound a cautionary note that too great a focus on competence and efficiency might divert a radiographer's attention from the human being and their individual concerns:

"I'm sure we've all been in the situation where you've got a lot of chest x-rays waiting, DR room, you can do that in under a minute, are you giving that patient care? You know to you, it's another chest x-ray, to that patient it's a possible cancer diagnosis, a possible life-changing, thing that they're coming in for, yea. So I think competence can override your ability to remain, thinking about your patient" P-G FG

"They were quite business-like and efficient but they had absolutely no comprehension whatsoever of standing on my toes was gonna be agony..." P28

Ongoing efforts to reduce the interaction time which may at first have seemed desirable may become counter-productive when the focus shifts from the job,

now identifiable as acquisition of the image to the wider patient-practitioner encounter, which is where compassion interacts with competence.

5.3.4 Professionalism and compassion

The analysis so far has identified a difference of opinion between patients and practitioners as to whether speed and efficiency constitute compassion. The closely related issue of whether technical competence constitutes compassion arose during focus group and Twitter discussions. Therapeutic radiographers who discussed this issue in focus groups in a study conducted in 2010 could not agree on this (Bolderston, Lewis and Chai, 2010), possibly because they were trying to think about it from patients' perspectives as well as their own. Presumably based on perceptions of their own interactions with patients, experienced radiographers debating the issue on Twitter wondered about their role and the place of compassion within it:

"Compassion isn't just touchy-feely it is also competence?" // "If I had to choose I'd rather competent care than compassionate care whilst treating each person as an individual" // "I agree 100% but also recognise compassion is a nice bonus that enhances patient experience" // "I'm not sure patients would see this as a 'bonus' RadTweets

The consensus from this Twitter discussion was that compassion and technical competence were connected:

"Competence a definite part of compassion" RadTweet

"You are not truly professional if you do not have compassion. You might be good, but not great. A doer of technical tasks" RadTweet

In their focus group those more recently qualified agreed that in minimising the time patients spent in states of anxiety and physical discomfort and instilling confidence, competence is an act of compassion:

"I think you need to show competence, to project confidence (yea) then the patient is confident (yea) in you..." "I: and that's an act of compassion?" "Yea, because they (many voices) if you have ... sufficiently as well then ... get them in and out without them being uncomfortable while you're imaging, then that's

also compassion for the patient." // "I think they're well and truly linked and it's getting the best image for the patient as well because you need to technically be good," P-G FG

Patients, on the other hand, when asked whether compassion included competence did not feel the same way:

"if you had somebody that was compassionate but didn't give you the confidence that they knew what they were doing, they can be the wonderful, most caring person in the world but if you're there with a specific problem and you don't think that they really understand what your problem is or they don't give you the confidence that they are going to do the right thing for you then..." P10

"I think proficiency...if you see someone's proficient and puts you at ease...in their ability but compassion is...a different thing." P31

These data highlight the differences of opinion between patients and radiographers with regard to compassion and competence. Competence was linked in patients' minds with professionalism which in turn was distinct from compassion in patients' minds:

Competence... I would term it in the same, under the same umbrella. Professionalism, I would group that with." P15

Competence, proficiency and efficiency are integral to professional conduct for radiographers (SoR, 2013) and have also been linked in the research literature with professionalism (Andersson *et al.*, 2008; Challen, Laanelaid and Kukkes, 2017). A small number of patients in this study made the same association, but the previously noted link with confidence is also a trust in their radiographer that they will keep them safe from harm:

"Obviously to know their way round their department, their equipment, know the safety. ... So, I think they, all the things you'd expect a professional health worker in a position of authority over the patient because they work in a very specialised part of the health service and just feel confident in them.... As somebody who doesn't know what they're doing could actually cause a lot of damage if they start pulling your broken foot around in the wrong way, that sort of thing" P14

The differences of opinion between patients and practitioners notwithstanding, competence appears to be a way for radiographers to safeguard patients' psychological as well as physical safety and, in minimising or relieving the suffering of anxiety and fear, may be a defining constituent of compassionate professionalism. In the next sub-theme the focus shifts from the technical to the interpersonal features of compassion in the imaging encounter.

5.4 Compassion in the radiographer-patient interaction

The previous two sub-themes explored how compassion featured in the technical aspects of the imaging procedure. This sub-theme reports those characteristics of compassion in the radiographer-patient interaction. These consist of the dialogue between patient and radiographer and characteristics of the interaction such as introductions, gaining co-operation and expediting the procedure. Within the dialogue, interpretation of verbal and non-verbal cues and understanding of how these impact on feelings and attitudes allow appraisal and judgment of the quality of the interaction which in turn impacts on patients' opinions of the interaction as compassionate or otherwise. Key differences between radiography and other healthcare professions are presented in terms of the physical environment, role of the radiographer and personality characteristics.

5.4.1 Key findings

- The quality of the dialogue between radiographer and patient can range from minimal and functional to wider and more personalised;
- A good or high quality dialogue positively impacts patient safety and wellbeing;
- Higher quality dialogues consist in part of personalised questions and attentive interest from the radiographer;
- Friendliness and warmth conveyed by the radiographer together with explanations about what to expect calm and reassure patients and expedite the procedure;
- Low quality dialogues contribute to patient perceptions of radiographers as technicians or 'button-pushers';
- Smiling and eye contact were the non-verbal communication cues most noticed by patients;
- 'Little things' and small gestures may take little time but may come at a high cost in terms of emotional energy and effort;
- They can accumulate to produce overall negative, as well as positive outcomes;
- ❖ Tone of voice was noticed as comforting and encouraging principally by patients, although students thought at times it was patronising.

5.4.2 The dialogue between radiographer and patient

This section explores the conversation which takes place between radiographer and patient during the course of the imaging procedure from the time the patient is called from the waiting room, to the time they return to it. Even within the short

time-frame of the procedure, this can vary in quality and quantity; patients noticed and remembered interactions where the dialogue was minimal:

"I think it was more professional, just take your necklace off, just that. It was clear, concise instructions of what to do but, no, there was no, I don't believe there was any social chit-chat and so on." P19

"I was just one of the 'get them done before the...' [clinic appointment] ... but there was not a 'did you come up today or did you come up last night?' sort of thing. ... 'Are you on your own or have you driven? ... Or even, 'what have you been doing to get to this stage?" P28

Students and patients noticed when the interaction included elements that personalised and humanised the patient, and perceived the interaction between radiographer and patient as higher in quality:

"...I think that did make a difference and as well, patients saw that it made a difference because they would have a full conversation with the patient about something completely irrelevant to radiography and I think that really helped patients so, yeah." FG1

"...that was fine. The person was quite chatty and I was impressed 'cos it was happening at seven in the evening and I thought, 'gosh, they're still doing things then, that's really good,' so I was talking to her about how long she had to work and was I the last person" I: Okay, so I'm getting a feeling of some kind of personable, interpersonal exchanges that made you feel a bit more comfortable. R: I think, yeah, I think that makes a huge difference" P33

Students further recognised that dialogue and rapport played a more important role than merely promoting a pleasant social interaction, and the difference made a tangible impact on patient safety and wellbeing:

"I keep thinking of an example of dialogue... There was an elderly chap, he wasn't, he was grunting or just being obedient but, because of the situation, it involved a lot of talking and listening to him and after a while he broke down in tears and transpired that he'd had lots of problems with his nursing home, but it's because he was being listened to ... that he obviously...he just felt... he got really

upset and then it all came out that he wasn't having a good time ... at his nursing home so it involved further investigations and phone calls into adults at risk and things like that ... so he obviously, he just felt comfortable because he had the opportunity or he felt that someone was listening ... to him, so if it had been more, do this, do that ... you know, we might not have found out. ... It was just there was a few of us in there just chatting..." FG1+2

Patients did recognise and acknowledge that optimising the interaction is far from easy, given the evident constraints of time and limited opportunities to get to know the patient whilst performing the task in hand. The second quote below came from a patient who was trying at the time to generalise their wider experiences which included undergoing DI, so terms used such as 'administratively' and 'paperwork' are not bespoke to the imaging procedure but encapsulate the tensions between the need to undertake the imaging task whilst at the same time engaging with the person:

"I think just more interaction would have solved the problem, you know, 'so, apart from this, how's your day going?' Anything like that. It's difficult 'cos I imagine it's... it's not something that ...because your interactions with people... in the role are by necessity short and sweet..." P08

I think, I mean, I didn't particularly have questions and people were fine but I think sometimes in that hospital situation there are people who are very good administratively but they can be officious to their clients, if you like, or their patients and that's not, I don't think that's so good. Even if they're brilliant on the paperwork and I know in a way they need to be brilliant at both so it's difficult, isn't it?" P33

The content of the dialogue varied, but the following quotes from patients provide the key components of the dialogue including questions and explanations, and in which the radiographer appeared interested in the patient; their concerns and expectations. This was achieved in a relatively short space of time despite perceptions that there is no time to talk to patients:

"...and she said, 'what's the problem, see you've been sent today, my name is this, this is what we're going to do, this is how we're gonna do it.' She said, 'that's a bit unusual, how long have you been suffering from this, you hoping to get some results from this,' and there was a lot more interaction, asked me why I was there, what I expected from it..." P16

"That's not to say there was any time wasted, I think she was working well and preparing well throughout the process but on the basis that we are all multitasking it was having the pleasant conversation or banter in the background as well as actually preparing and moving things around." P01

Apparent from these data is that perceptions of the quality of the dialogue remains with patients long after their imaging procedure and influences their attitudes and opinions when reconstructing their experiences. Patients were not unduly concerned when the dialogue was minimal and inoffensive, but this may account for why some reported an absence of compassion and contribute to their impressions of diagnostic imaging as principally a technical procedure; ergo, radiographers as technicians rather than autonomous professionals. Higher quality dialogues for patients included questions as well as instructions; the next section shows how and where these were incorporated into the interaction.

5.4.3 Introductions and explanations

The quality of the dialogue was shown in the last section to be superior when the radiographer asked pertinent questions about the patient and engaged with their responses. However, this research offers a stark warning that the type of questions asked and the way instructions are given can, if insensitively done be little short of disastrous. The effects of an introduction that began in this way are presented in the first quote; the intensity of the emotions engendered is particularly noteworthy. In contrast, the second quote summarises other patients' feelings of relaxation on being greeted by a radiographer who first introduced themselves:

"Well, the first thing he said to me was,' have you got bones in your brassiere?' I: Right, okay, so even before he'd said, 'hello,' or, 'my name is...' R: 'And go in there and remove your clothes and take your brassiere off.' I: Right, okay. How did that make you feel? R: Very intimidated. He was very blunt" P20

"Yes, very friendly and the fact that they said, 'I'm so-and-so, this so-and-so,' made ever such a difference because you relaxed into how they were dealing with you which is very good." P09

In addition to the radiographer introducing themselves, patients commented that appearing friendly left lasting impressions of warmth, comfort and reassurance:

"I can remember because I remember feeling very comfortable so I know they must have been ...I remember they were incredibly, very friendly." P06

"And friendly. I remember that, very reassuring" P08

Students also noticed the reassuring effects on patients when radiographers introduced themselves before commencing the procedure and that there were further benefits in terms of gaining the patient's co-operation:

"Also you get a patient on side, you're nice to them" // "Yeah, I think it gives that more" // "they're just more helpful. // "gives that little bit of relaxed, when you introduce yourself, you're not like, 'can they', a lot of them are anxious about the examination but you give that little bit of friendly introduction and that..." FG1

The #hellomynameis campaign (Granger, 2013) encouraged all healthcare professionals to introduce themselves to their patient before commencing any procedures and these findings offer some detail regarding the human connection that the campaign aims to promote. Additionally however, if the radiographer further conversed with patients about events preceding their visit the encounter was personalised and humanised, engendering feelings in patients of being cared for or about:

"I think it was just generally a lot more welcoming and asking more questions and giving them more information and just explaining things to them more as opposed to just treating the patients like a piece of meat and just getting them through the process..." FG1

"It's always nice, like if they've broken their arm, the radiographer has a quick chat: 'so how did you do it', and like almost a little joke about how it was done or your football kit: 'I can see how you did this', and I always found that was much nicer. That's kind of like a very quick way of getting to know the patient" P02

Explanations and engagement with the patient augment introductions and questions in terms of reassurance and encouragement and further provide information to the radiographer as to the extent to which the patient will be able to co-operate with the examination:

"...and explained exactly what was going to happen and was just very, very helpful and very good, positioning the hands and everything and saying, 'yes, you've done that well', and 'that's absolutely fine', and also talked me through whilst she went into the back bit, I could hear her." P03

"She ran through it all first which was really good 'cos then I knew and then I could say 'actually when you do that, I'm gonna find that painful' so then she remembered" P04

Ascertaining the extent to which the patient will be able to co-operate can make a difference to the duration and ease of executing the procedure; highly beneficial to both patient and radiographer when time is of the essence and production of high quality diagnostic images is paramount. Furthermore, lack of information or explanations also appears to have an impact on patients' perceptions and expectations with regard to the role of a radiographer:

"I think it would have been nice to be acknowledged ... 'hello, my name is ..., I'm here to give you an X-ray and you can find the results in a weeks' time if you phone up your doctor,' but there was nothing like that so there was no information at that time or for the future. It was just very clinical, she was there to push buttons and off you go, but I didn't expect anything else." P29

This can have unfortunate consequences for a profession promoting radiographers as autonomous professionals rather than technicians, and in a radiography research climate in which the subject of professionalism is of interest, these are significant findings. This research has revealed components of compassion that include in addition to appearing competent and unhurried, specific features of communication; namely a dialogue consisting of a friendly introduction and interest in the patient as a person through inquisitive, rather than

interrogatory questioning and explanations about the procedure and beyond. The next section specifies those verbal and non-verbal cues and behaviours which embellish the interaction and constitute compassion.

5.4.4 Verbal and non-verbal communication

The data presented in this section furnish the analysis with the linguistic and behavioural cues which signal friendliness and warmth in the interaction, in turn reassuring patients and calming some of their anxieties. Students noticed how this enabled the radiographer to gain co-operation and safeguard physical and psychological safety through fostering dialogue. Making eye contact and smiling were the non-verbal cues most apparent to patients and students, with a suggestion that these came at no extra cost in time or effort. The impact, however appeared much greater in magnitude:

"I definitely remember smiling, yes, 'cos I pick up on that sort of thing. I like people to smile, it doesn't cost anything, does it?" P14

"I wish I could remember more exactly but I remember eye contact, definitely. "...to be honest, when you're a person going in to have an X-ray, it's just that immediate eye contact, isn't it? It's the making you feel at ease by whatever means" P06

"...everybody smiles. Astonishing. Absolutely astonishing. Going up on the trolley and you're dazed and people are smiling at you. I: It's terribly important, isn't it? Huge. It's probably the most enduring memory of both my wife and I: of people smiling" P30

In their discussions of a compassionate encounter, radiographers also recognised the value of these:

"I want to make a difference to each patient's day and be remembered for my smile, generosity etc." // "I x-ray 50 people a day, spend half that time behind a wall. Still find ways to give care. #NOD smile" RadTweet

(#NOD is an acronym for Name, Occupation, and what you are going to Do used to remind radiographers of how to introduce themselves to patients).

Students and patients noticed when these non-verbal cues were absent from the interaction, and were disturbed:

"They were directional:' do this'. ...and they didn't have, the eye contact wasn't there, they weren't ... no sort of rapport going, it was more 'I need you to do this."

FG1

"No, he didn't smile ... it was more or less orders what I had to do... for the different positions. I thought, 'Christ, what's going on here?' because I felt a little bit assaulted by it as well." P20

Hashtags such as #NOD and #Hellomynameis are used in social media and other online communications between healthcare workers including radiographers to converse about the importance of these communication skills in the patient-practitioner interaction. That these reminders are needed belies their apparent simplicity and effortlessness in practice. There was a suggestion that pressures of time and workload may be a contributory factor when verbal and non-verbal cues signalling compassion are lacking. More than that though, it seems that patients do not expect to be witness to this:

"The caring, talking, hand-on-the-shoulder radiographers get told to "hurry up", no time for niceties" RadTweet

"I think it comes down to their mannerisms and body language on how they are with you and although, it must be difficult for them, certainly in [Hospital 2], that they're under this pressure but I think they shouldn't show that" P16

This however is at odds with data which suggested non-verbal cues for warmth and friendliness are cost-neutral. These data show that radiographers and patients attributed any lack of non-verbal cues signalling warmth and friendliness to external sources outside their control (Heider, 1958; Jones and Nisbett, 1971); an equally plausible explanation is that the demand for enough emotional energy to meet expectations of a smile for every patient is simply too great; that these behaviours also appear effortless, spontaneous and genuine is beyond unreasonable (Hochschild, 1983, 2015). Awareness of emotional burnout featured in the radiographer tweets, and patients were conscious of the unsustainability of continually expressing compassion:

"Burn out very common..." // "Indeed you don't want to run the risk of emotional burnout"// "burn out is a real risk" "Burnout is a risk but avoidable..." RadTweets

"You can't keep doling out compassion all the time. Otherwise you could get burnt up." P32

As well as facial cues, gestures were noticed particularly by students as non-verbal indicators of a compassionate interaction, with examples from the data given here. Like smiling and making eye contact, there was a suggestion that these are small things which cost little to the donor:

"Sometimes you can offer them a hug 'cos once they're crying and you can't just stand there and go, 'okay', or a tissue or something." // "Just doing up their straps on their gowns, you know, it's just little bits like that." // "Carry their basket." FG1

"Just things like, I don't know, getting water for patients and things, every now and then, is quite a nice thing and like, even if it's the only thing you can do in these situations, when it's that stressful, it's nice seeing that..." FG1+2

'Little things' and 'small things' appear in the literature as components of compassion with a correspondingly large positive impact on patients (Dewar and Kennedy, 2016; Goodrich, 2016; McMaster and DeGiobbi, 2016); there is far less recognition or acknowledgement of the emotional energy required for their sustained use. This largely uncritical acceptance of little things in compassion research also ignores the fact that they can create negative as well as positive outcomes. Students were the only group of participants to make this observation:

"But they all compound. There wasn't any one thing or any one person, or anything, you know. Lots of tiny things seem to build up to an overall negative impression." FG2

"It's like you have a bad day because lots of tiny things go wrong and by the end you're having a nervous breakdown." FG2

Tone of voice was a verbal paralanguage cue noticed principally by students. Seen in the literature review, Strudwick's observations of radiographers' 'set patter of speech' was interpreted as a means of ensuring procedures were followed (Strudwick, 2013). Students saw this used repeatedly, referring to it as *"the spiel"*, but viewed it in a less positive light:

"...stock responses... supposed to be friendly ... but the same voice, same pitch. They pitch it the same way at every patient and it can come across as quite condescending at times, I think, to some of the patients." FG1+2

Some patients did notice and appreciate a comforting tone, and although they did not elucidate on how this sounded, they saw how it was used by the radiographer to gain their co-operation in a way that did not appear directional or overbearing:

"They had [a] comforting voice as well, they weren't like really stern." P23

"...they obviously have to tell you to stay still and they have to say they need to get out the way so you are and you know you need be as still as possible but they don't, you're not drilled in a way, it's not, you're not ferociously told" P33

Tone of voice aside, language and terminology, in particular medical terminology are well recognised in the literature as barriers to interpersonal communication between patients and health professionals and, consequently, a potential barrier to the communication of compassion. A small number of patients made general comments about this without specifying that it occurred during their imaging examination. Reeves has previously commented on the dehumanising effects on patients when radiographers refer to them in terms of their body part or imaging examination (Reeves and Decker, 2012); inferred from this is a negative impact on compassion. Yet, these data suggest this is not such a terrible crime, provided it is out of earshot of the patient:

I: "Yeah, we are guilty sometimes of referring to people as the 'chest X-ray' or the..." P: I don't care if they do it when I'm not there." P03

This research suggests that radiographic encounters which include personalised communication as well as the necessary technical components are more likely to be perceived by patients as compassionate. Smiling and eye contact, small gestures of kindness, tone of voice and language are noticed and retained in the memories of patients and students. These specific verbal non-verbal and behavioural cues from radiographers provide evidence with which to compile a

concept of a compassionate interaction but they are not cost-neutral. Procedural elements which have been previously identified as specific to radiography including the brief interaction time and technical and image production characteristics were reported, explored and refined according to their relationship with compassion in the previous sub-themes. In the final sub-theme, the unique characteristics of a radiographic encounter compared with other health professions are identified and their relationship with compassion explored.

5.5 Finding compassion in the mechanical and task-based features of radiography

In this sub-theme, elements specific to radiography that impact on compassion are explored in relation to nursing, medicine and other healthcare professions and include the physical environment of an imaging department, the role of a radiographer and an exploration of what motivates radiographers to choose their profession.

5.5.1 Key findings

- The x-ray room stands out in patients' memories in terms of mechanistic coldness, low light levels and physical barriers to human contact such as the protective screens behind which radiographers disappear at the point of exposure;
- Patients are not necessarily upset by this, sometimes it matches their expectations;
- Patients perceive radiographers in terms of their role and the task they perform which differ qualitatively from those of nurses and other health professionals;
- Patients and students speculated about the personality characteristics that might influence and motivate radiographers to choose their profession.

5.5.2 The radiographic environment

The features of the x-ray department environment which registered and left lasting impressions on patients were its low temperature and light levels which were felt to be unpleasant and contributed to a sense of isolation from human contact when the radiographer left the patient to make the exposure:

"...sometimes you're just left in this darkened room, I know it's only for a couple of seconds but it's not very nice, is it?" P03

"It was cold... I find radiography usually is cold. [interviewer clarifies whether 'radiography' refers to people or the temperature as cold] ... Yes, no, no, no, they were nice, temperature cold and it was quite dark, as well" P02

Coupled with darkness and isolation, the patient enters an x-ray room consisting entirely of equipment: electrical generators, a table for patients to lie on for horizontal imaging and an upright stand for imaging in a vertical plane. The x-ray tube and associated cables hang suspended from the ceiling, ready to be positioned according to the image required. Patients certainly noticed this mechanistic and compassionless environment, with terms such as 'zap' and 'scary' indicative of how they felt on entering:

"But when you first go in, it's very dull and I would have...I suppose because it's a very functional environment, you've got machines everywhere, haven't you, and you got this thing that's gonna shine a light on you and this sort of thing...zap you." P14

"And if you're not used to the machines because the machines are slightly scary."
P33

The physical barriers that protect radiographers from exposure to radiation were seen by patients as an emotional barrier to human interaction and connection, contributing to an overall sense of a remote or impersonal encounter. The quote from P14 was a response to a question about a patient's expectations when having an x-ray that were different to a clinic or on a ward. The patient was describing an experience in MRI, but saw little difference between that and their other experiences of plain x-ray:

"Yes, very different. It's very similar to when I had my MRI scan. That is, you feel a bit robotic, so you're given your gown or you're given this and you sit on that chair, then you walk past the people who are operating the machine, no one looks up at you, then you're popped into the machine, 'are you okay?' 'That's fine, thank you.' So, it's quite a...I would say that's it's a very impersonal, cold" P29

"...it's a little more remote, isn't it? ...she's hidden behind the screen..." P30

Although the darkness, cold and impersonality in these data might suggest an engendering of negative emotions such as fear and anxiety, paradoxically, patients sometimes supplanted their comments with remarks that they did not mind, seemingly accepting that these conditions met with their expectations for a radiographic procedure. Radiographers offer a human connection in this otherwise alien environment and their role in this context is explored next.

5.5.3 The role of the radiographer

Patients' perceptions of the role of the radiographer were set in the context of ideas that have been explored in this theme which include the briefness of the interaction, its technical, functional and somewhat impersonal nature. Compared with nursing and other healthcare professions, perceptions and expectations were based on the task rather than the person:

"You're expecting the caring with the nursing, I don't think we expect it so much on that aspect [patient was referring to radiography]. If you say about physios, I'd expect them to be a bit more compassionate, a bit more caring. It's a follow-on service whereas, obviously at x-ray, you're there for probably five, ten minutes but it's a flow through system so I don't think you necessarily need the compassion there." P23

"A radiographer doesn't have the hands-on caring role that a nurse does." P30

"...an anaesthetist who's gonna put you under for the next six hours, I want compassion; I want to know that you care about me. X-rays: I want you to get it right." P15

"Yes, it was quite a cold appointment, I thought. There wasn't any personality coming out to me or wanting to even say my name, I don't think she even said my name, but then I didn't mind because it is an x-ray." P29

Patients based their perceptions of the radiographer as performer of a technical task compared with other health professionals and whilst there is one example where this caused deep disturbance (seen in section 5.4.3) others reported milder feelings such as "ruffled" (P01) and most were accepting. Patients and students held views and opinions as to the personal and innate characteristics of radiographers that seem to align with the technical characteristics of both the procedure and the role.

5.5.4 Characteristics of radiographers

Students and patients both speculated as to whether there were innate personality characteristics in radiographers which were less common to those in the nursing, medical and other health professions, and which might have led to a career choice in radiography:

"I think radiographers can be very mechanically minded ... so if there's particular sort of person that becomes a radiographer, maybe previously, and compassion is viewed as being, 'well, you're not a nurse' ... so 'we're here to get something, we're gonna get it and then whatever the other problems are, we'll get someone else to sort that out" FG1

"Some people are naturally very compassionate and kind and empathic. They can instantly see somebody and react to that person's feelings. I'm not certain those types will naturally be attracted to radiography [the patient then likened radiography to Information Technology professionals]. They speak binary. They don't speak human and I wonder if radiography being so scientific and so technical... if it attracts that sort of mind-set." P08

In their study of distancing in diagnostic radiography, Reeves and Decker noticed that radiography might have been the profession of choice for some because of the inherent differences in the emotional closeness of the relationship with the patient compared with nursing and physiotherapy (Reeves and Decker, 2012). These data suggest additionally a characteristic of radiographers which reflects

an interest in and inclination towards technical and mechanical as well as human factors.

5.6 Summary of theme

This chapter set out to present those constituents of compassion that are apparent, visible or detectable to students, patients and radiographers during the diagnostic imaging procedure. Compassion in DI does not simply consist of the behaviours and mannerisms of a radiographer towards their patient, despite inferences which might be made from definitions which tend to refer to actions of one individual aimed at relieving the suffering of another. In this theme the external features of the DI procedure perceived through the senses of sight, hearing and sensation and which were apparent to patients, students and radiographers were presented, only some of which were individual actions and behaviours, whereas others were features of the task of acquiring the image, the x-ray department and x-ray room. Technological changes which have reduced the time taken to produce the image have led to shorter interaction times. The literature suggests that this is becoming increasingly valued by patients, possibly due to reducing the time spent suffering the psychological pain of anxiety as well as physical discomfort; however it is also the case that too short a time spent on the patient-practitioner interaction can depersonalise and dehumanise both patient and radiographer. The optimum length of time spent with a patient in diagnostic imaging was not identified from these data, but the quality of the interaction can now be defined in terms of introductions that communicate friendliness and warmth, such as a smile and deliberate eye contact on greeting the patient. The quality of the dialogue between radiographer and patient serves a wider purpose than social pleasantries and can expedite the procedure and safeguard patients' physical and psychological wellbeing. Inquisitive, rather than interrogatory questioning of patients about their imaging examination and surrounding circumstances, offering explanations about the procedure and what follows on from it personalise, develop rapport and engage patients with the procedure. They also garner co-operation and allow patients to feel that the radiographer is interested in them as a person. A good or high quality interaction

further serves to calm and relax patients and is seen by students and radiographers as compassionate acts of anxiety reduction. Although mechanistic and image production factors are a dominant feature of the encounter, competence and proficiency in these aspects of the procedure inspire confidence and reassurance for patients that the job can be done quickly and efficiently. The so-called 'little things' which in the literature constitute compassion can, in some instances, have counterproductive effects; this was particularly noticed by students as contributing to a difficult or bad day. Moreover, the apparently minimal cost in time or effort of such small gestures as smiling and appearing friendly, welcoming and caring is not as low as first appears when seen in terms of the sustained demand on the emotional energy required of the radiographer. Workload pressures with consequent feelings of a lack of time were considered by students and radiographers to be a barrier to compassion in addition to the demands of the task. The x-ray room, chilly and gloomy with hard, functional and sometimes intimidating equipment is not a conducive environment to compassion and may worsen patients' fears and anxieties, although in some cases, this is what patients expect from an imaging encounter and in their minds they can accommodate these differences between the x-ray department and other areas of the hospital. Patients' expectations of the radiographer in terms of their role are also seen in depersonalising terms of a performer of a technical task rather than a more holistic vison of a healthcare professional. It is perhaps ironic that radiography is not viewed as a 'hands-on caring profession' when touch is such an integral part of the imaging procedure, although previous research suggests radiographers choose to go into the profession because, rather than in spite of, the perceived greater emotional distance between radiographer and patient than nursing and physiotherapy. This research suggests other motivators include an inherent interest in, and inclination towards the technical and mechanical features of radiography.

In the next chapter, the deeper and less readily perceivable qualities, skills and abilities that underpin expressed or perceptible components of compassion in DI are presented.

Chapter 6: Theme 2 - The qualities, skills and attributes associated with a compassionate radiographer

6.1 Introduction

The purpose of the second results chapter is to present deeper processes which underpin and direct the outward expressions and perceptible components of compassion during DI seen in the previous chapter. These consisted of characteristics of individual behaviours; the imaging procedure; the interaction between patient and radiographer and physical features of the x-ray department environment. The process of acquiring the image and honing and deploying technical skills was shown to be a fundamental part of the imaging encounter for students and radiographers, and for patients, image acquisition is key to their diagnosis and treatment. Compassion is woven into these mechanistic elements through the human and interactional aspects of the imaging encounter. This chapter presents underlying qualities, skills and abilities associated with compassion which may be innate, learned or developed and the interpretations made in this theme draw on Dramaturgy; the theory of social interactions introduced in the literature review (Goffman, 1959). Communication is elemental in this theme and includes the verbal and non-verbal cues and behaviours of patients, radiographers and students during the imaging encounter. Emotions and feelings are also key to understanding the meaning of compassion to patients, radiographers and students. Sub-themes explore the complexity of the processes involved in forming impressions of radiographers by patients and students, and of patients by radiographers and students. Skills and abilities needed for radiographers to read, interpret and understand patients' behaviours so that they can interact effectively, yet with compassion are identified and the chapter ends with a sub-theme detailing the factors involved in the development of these skills and abilities in the course of becoming a compassionate radiographer.

The data are presented in four sub-themes:

- 6.2 The quality of authenticity in a radiographer and its relationship with compassion
 - 6.2.1 Key findings
 - 6.2.2 Faking it
 - 6.2.3 Personal and professional qualities
 - 6.2.4 "You don't need to be compassionate every day"
- 6.3 Radiographers' skills in interpreting cues and adapting communication skills
 - 6.3.1 Key findings
 - 6.3.2 Hidden emotions and behavioural cues
 - 6.3.3 Adapting behaviours and communication
 - 6.3.4 Giving information
- 6.4 Qualities and skills in understanding and relating to the patient
 - 6.4.1 Key findings
 - 6.4.2 Empathy, sympathy and pity
 - 6.4.3 Listening and hearing
 - 6.4.4 Non-judgmental acknowledging and accepting
- 6.5 Learning and developing qualities and skills in a process of becoming a compassionate radiographer
 - 6.5.1 Key findings
 - 6.5.2 Learning compassion
 - 6.5.3 Emotional development and management
 - 6.5.4 Proactivity, reflection and determination
- 6.6 Summary of theme

6.2 The quality of authenticity in a radiographer and its relationship with compassion

According to Dramaturgical theory, impression management is a term describing how an individual's actions and behaviours, or omissions thereof, are designed to influence others' perceptions of that person. This sub-theme explores impression management in terms of the authenticity of expressions of compassion by the radiographer as perceived by patients and by student radiographers' observations of the radiographer-patient interaction on placement. The relationship between this and the personal and professional qualities, skills and abilities associated with the role of a radiographer are also explored.

6.2.1 Key findings

- Appearing compassionate even if sympathy and empathy are not felt by the radiographer is acceptable to students and some radiographers, whilst other radiographers find it unacceptable and patients doubt that it is sustainable;
- Benefits to patients when compassion is perceived include positive effects on their impressions, emotions and wellbeing;
- Drawbacks of perceived compassion for patients include misplaced confidence and unquestioning compliance which may in some cases result in sub-optimal imaging;
- In radiographers appearing compassionate may mask inauthenticity and psychopathology;
- Compassion is commonly seen by patients, but not necessarily by students as located within an individual radiographer;
- Compassionate qualities include consideration and a deliberate decision to take longer than is required for basic image acquisition to attend to the needs of the patient;
- The expression of compassion may not be needed or appropriate in every case.

6.2.2 Faking it

A pattern was identified in the data that might initially have connotations of insincerity; faking compassion. The notion of faking it incorporates those verbal and non-verbal cues, actions and behaviours of radiographers presented in Chapter 5 which were perceived as compassionate by patients. These included appearances of friendliness through smiling and eye contact, and an encouraging tone of voice; the warmth of these ameliorating to some extent for the gloomy,

cold and mechanical nature of the surroundings as experienced by patients. Seeming unhurried, interested in and accepting of the patient combined with a competent and swift examination were interpreted as compassionate by students and radiographers when viewed as acts aiming to minimise physical and psychological discomfort, despite some patients' opinions that these do not fall within their definition. However, these appearances do not necessarily require authenticity; students and some radiographers agreed that as long as patients felt cared for, or about, then the feelings of the radiographer towards the patient did not always need to be genuine or heartfelt and that any lack of authenticity, providing it was not detectable, was justified in the interests of patients' wellbeing:

"Whether or not it's kind of natural compassion or displayed compassion. I think it's irrelevant as long as the patients feel like they're being looked after and they're positive. I think it's better than wordlessly leaving them in the corridor and then going back in, which is what some of the radiographers do..." FG1+2

"Saw a great Ted talk recently 'fake it until you become it'. Could work well for those that struggle with compassion" // [Compassion is] "When you hear the same problems repeatedly but react as though it's the first time" RadTweets

Patients reported similar views, but were rather less certain that their radiographer could carry this off with authenticity and conviction:

"False compassion, bit like false empathy; that can come across as patronising." P25

The data gave cause to consider other issues associated with faking it. The potential for faking it to mask something rather more sinister, namely psychopathology was a concern raised in the literature review (Ferguson and Johnson, 2014) and was also in the minds of both students and patients:

"Yeah, so you, like, people who are just, kind of, like, naturally empathic on everything which I...'cos I was discussing this with you the other day, wasn't I?"

"Yes."
"You could be... We could be awful psychopaths, as long as we pretend we're nice to the patient."
FG1+2

"I think you've got to ask yourself the question: what are the behaviours used by the person who appears to be because what they're thinking is totally irrelevant. What counts is what you see on the outside and that's a person's behaviour. Now, you can be a lethal Kremlin killer but if you appear compassionate and warm on the outside people will think you're a brilliant radiographer..." P17

Radiographers discussing the issue on Twitter, some of whom had experience of being patients themselves, differed in their views regarding authenticity, with some appearing comfortable with the idea of faking compassion, whilst others railed against suggestions of inauthenticity as acceptable. Fears were also shared that expressing compassion might be masking a lack of technical competence:

"Just like a slick used car salesman can pull the wool over a buyers eyes! It's not smoke & mirrors" // "As a cancer patient, I believe I can tell a compassionate practitioner over a used car salesman" // "That wasn't the analogy, can a patient tell incompetence & poorer outcomes when wrapped in great compassion?" RadTweets

This fear is justified: patients' perceptions of competence were based on their subjective appraisals of speed and proficiency. There were few reports that the radiographer had offered their patient the opportunity to view the images and in any case, patients are not skilled in their interpretation, so their perceptions of competence were limited to their interpretations of its appearances in the radiographer and of the encounter as a whole. Students also commented that expressions of compassion may in some cases lull patients into a false sense of confidence in the competence of their radiographer. The remarks from this student who was courageous enough to admit to mistakes made whilst on placement illustrate the potential detriment of appearing compassionate and competent:

"...but, of course, if they're very...if you're putting on this great...this friendly face and look like you know what you're talking about, you sit them down, they become very obedient and if...so they'll just do whatever you want them to do and then occasionally I made a mistake ... and the man who I x-rayed was like 'yeah, I

wondered why you were doing it' ... I'd lulled him into a sense of obedience" FG1+2

The findings which generated this sub-theme were surprising and disturbing as at first they would appear to be at odds with idealised notions of a compassionate practitioner who cares from the heart about their patients. Dramaturgical theory reassures us that, in the absence of cynical or sinister motives, the presentation of the self can be engineered in order to smooth the interaction to the benefit of both patient and radiographer. These findings lead to an exploration in the next sub-theme of the personal and professional qualities, skills and abilities associated with compassion and the way these interact.

6.2.3 Personal and professional qualities

When conducting the interviews and focus groups care was taken to allow participants to describe compassion in their own terms, so leading questions such as "What do you think makes a compassionate radiographer?" were avoided in favour of a more generalised "What do you think makes a good radiographer?". Although this produced wide-ranging views and made interpretation challenging, it was possible to construe assumptions of compassion as a personal characteristic of individual practitioners through references to *being* compassionate, suggesting a view of compassion as innate. Policy, protocol and a sizeable section of the literature tend to assign compassion to the individual and all patients and some students also saw compassion as residing within the person, or perhaps that it should:

"Yeah, I think it's a person. I think either it's something...I mean, obviously it's continuing, isn't it, and you kind of have it and some people out there are ...so you can't say someone has got it and someone hasn't but I think you can tell the people who it's more natural for." P06

"...'cos that's where your heart should lie as it were" FG2

Not all students saw compassion in terms of individual qualities, instead viewing it at least in part as a characteristic of the culture of the organisation, whether hospital, NHS Trust or education institution:

"I think, oftentimes, it's sometimes a little bit to do with the culture of the hospital but also it's very radiographer specific as well so it can be an overall kind of feel for patient care and that can differ between hospital and hospital." FG3

"So, I think that's a two-way process that universities want students that are caring and I think students probably do want a university that does care about patient care, you know, 'cos I think that's one of the factors of becoming a good radiographer so if university values that, then it may be a good course." FG2

For all patients but only some students and radiographers, the role and the person were synonymous. Although this created the dissonance seen amongst radiographers with regard to authenticity, Goffman explains this when he suggests that the performer of a role will act out its expected or idealised components and conceal from their audience those acts which are inconsistent with that role; over time the distinction between role and person blurs (Goffman, 1990, p51). For radiographers wishing to present the most ideal or idealised version of their role, or indeed themselves, the data presented so far suggest that 'faking it' involves concealing those acts signalling a lack of compassion including appearing rushed or hurried, uncertain as to how to image their patient and uninterested in them.

When discussed in student focus groups, in terms of radiographers' behaviours, other acts which appeared to communicate compassion were the observable small gestures and 'little things' presented in section 5.4.4. However, several mentions were also made of 'an extra mile' in association with compassion, only sometimes described in any detail and appearing to be actions performed by an individual that went above and beyond an indeterminate level of 'basic' care:

"He [the radiographer to whom this student was referring] went that extra mile, which is...really good" FG1

"...depending on which radiographer. Some radiographers haven't got the time of day for patients. They're just a number, just want to get them out the door. I think it's a nice observation to have made when others go that extra mile which is where I think we are, really, we go the extra mile with patient care and what comes with all of that..." FG2

The notion of an extra mile appeared to involve the radiographer taking actions not directly connected with the basic task of image acquisition. In some cases this involved perceiving a physical or emotional discomfort that had arisen in their patient and acting to relieve it. Construed by patients and students as observable or perceivable compassion, some of these behaviours were reported in Chapter 5. Rarely though, was it reported by patients or students that patients had explicitly asked for help, consequently the quality of consideration was interpreted as associated with compassion:

- "...the staff are sweating buckets and they've got the air conditioning up high so some consideration for a 'are you warm enough, do you need a...do you want a blanket round your shoulders?' or...just like that." P10
- "...I think, and as well, people sometimes just talk to you because they're lonely and I think you do need to take that into consideration and sometimes it can mean a lot to the person and it's so easy to do, just to listen to what they're saying and it's not, it doesn't require any effort on my part, so why not do it if it can make them feel better." FG1

The extra mile was mentioned in association with time in the data with an inference made that more time is needed; smiling and appearing friendly and interested may be emotionally effortful but were not associated in the data with an extra mile and are not time-consuming, unlike actions consequent to deployment of skills of consideration such as fetching pillows and blankets which are often in short supply in NHS departments. The identification of a need for more time for compassion is potentially bad news for an already overstretched radiographer who also needs time to step out of the 'auto-pilot' mode associated somewhat ruefully by radiographers with repeated conduction of a technical task in order to stop and consider the patient and their specific needs, and perhaps talk to them about matters unrelated to the immediate imaging task. The apparent contradiction to this is seen in one student's perception in the quote above (FG1) that listening and talking to patients was effortless; this is a reflection of two differences between the roles and responsibilities of students and radiographers. Firstly, although aware of time and workload pressures which have been shown to compromise the quality of the radiographer-patient interaction, students are not as impacted by them. Secondly they are yet to experience the cumulative effects of sustained emotional engagement with patients discussed in the literature review (Hochschild, 1983).

The majority of patients' and students' responses to the question of whether compassion is essential in every encounter suggest that in diagnostic imaging, and with the caveat that this was not a sentiment shared by all patients, compassion is neither perceived nor expected by patients in every instance as the next section will show.

6.2.4 "You don't need to be compassionate every day"

One of the questions for the interviews and focus groups was generated by an ethical debate in the literature around the idea of whether compassion is a necessary feature of every patient-practitioner interaction (section 2.4.3) and question 6 in the interview schedule; see appendix 6). Some patients disagreed, sometimes strongly, with the notion that compassion is <u>not</u> needed in every case and that what matters most is that they are diagnosed and treated so that they can be on their way:

"Absolute bollocks!" P04

"I completely and utterly 100% disagree with that." P07

These patients clearly saw compassion as elemental and the following quote is indicative of a prevailing view around compassion that its expression is essential in every case:

"Oh, I've had this debate with people, especially from healthcare. I've had the debate about compassion ... and the argument being: 'well, if you're doing your job well, you should be showing compassion to every patient you see and if you're not, then there's something wrong.' P02

Other patients however were more circumspect; whether expressions of compassion were needed or appropriate depended not just on the extent or severity of their physical symptoms, but also on their psychological and emotional needs. The following quotes offer examples of these:

"I think when people are sick they need to be mollycoddled a bit more than they would normally." P02

"If the patient is anxious, upset or something you do need to spend a bit of time with them and show a bit of compassion." P05

Expressing compassion could even be counter-productive from patients' perspectives, and perhaps even backfire, leading to as unsatisfactory an interaction as one perceived as lacking in it:

"...cos to me compassion is a very personal thing because one person's compassion is another person's fussing, isn't it?" P14

I: "Okay, so, the fact that the word compassion doesn't figure in your experience isn't a bad thing... R: "No, absolutely." I: "because your experience, it wasn't needed..." R: (overspeaking) In fact... it would have got my back up a bit... P30

Patients' interpretations of the question of compassion as a necessary component in every interaction tended to depend on whether they saw it as an expressed behaviour or something more latent either within or outwith an individual. They would not necessarily have known whether the underlying feelings of the radiographer towards them matched their outward expressions and the data have shown that whilst the ideal is that patients feel cared for or about, this is not an essential component of compassion in all cases.

If felt or perceived compassion is not a necessity in every case, the question arises of radiographers' judgements of whether and how to express compassion towards their patients. An interesting notion of donning a mask by patients playing the role they believe is expected of them highlights the challenges facing the radiographer in identifying patients' needs:

"...the face behind...and it's what's behind the mask that you've got to break out. So, distress, yes, but it's never always apparent so, therefore, I wouldn't blame anybody for not recognising the symptoms" P25

Radiographers are also expected to assess their patient and make a judgment or decision as to whether expressions of compassion (the 'it' in the following quote) are appropriate:

"You just gotta judge it and need to be able to call it in every individual case. There's no 'yes, there is' or no, there isn't'. You've gotta have all that skill set." P12

Notions of a mask were also seen in the student data with reference to practitioners when presenting appearances of compassion:

: "...but that's, again, that's why you'd always put on that mask upfront, that baseline level of compassion where you introduce yourself, try and make the patient comfortable and...the more comfortable they feel, they more friendly they think you're being, the more they'll follow your instructions, they more they'll obey and you get them out quicker" FG1+2

These data illustrate the complexity of a compassionate radiographer-patient interaction in which the skills required of a radiographer are to both wear one mask in order to create a positive impression on the patient while using skills of interpretation of verbal and non-verbal cues to discover what lies behind another – and all of this whilst undertaking with proficiency the technical task of producing an x-ray image. The data in this study from patients who had positive or satisfactory experiences suggests that many radiographers are already adept at this, perhaps without even realising it, since there was no mention in the Twitter discussions of any awareness of this skill.

This sub-theme has teased apart complex ideas around compassion as an essential component of every radiographer-patient interaction and illustrates the finer distinctions between expressed and perceived compassion in terms of impression management and authenticity. In the next sub-theme the practical application of these findings is explored.

6.3 Radiographers' skills in interpreting cues and adapting communication skills

This sub-theme explores in more depth what feelings and emotions patients are hiding and the importance of interpreting them so that qualities, skills or abilities associated with compassion can be applied by radiographers in order to adapt to patients' cues and behaviours and so support their needs.

6.3.1 Key findings

- ❖ Feelings and emotions of patients may be intense yet remain hidden from view either unconsciously or deliberately. Skilful perception of these by the radiographer together with appropriate action can have profound and positive effects on their patients;
- By the end of their training, students are beginning to learn to read and interpret subtle cues in their patients. Once qualified and working however, these skills may become casualties of the technical and time-pressured characteristics of the interaction;
- Adapting a radiographer's interpersonal and communication style to meet the needs of the patient is as valuable a skill as adapting radiographic technique;
- Curiosity as well as anxiety can be concealed by patients, some of whom appreciate seeing or discussing their images with the radiographer.

6.3.2 Hidden emotions and behavioural cues

The previous sub-theme explored the qualities and skills used by radiographers to influence patients' impressions of a compassionate radiographer who is interested in them and their wellbeing. These include expressions of compassion

when their underlying feelings do not necessarily match patients' perceptions, and concealment of behaviours which would be perceived as uncaring. However, patients are capable of faking something too, when they hide their feelings and emotions from the radiographer:

"...that was 2 days after the hip replacement and it was still a... well I'm fairly bullish about things but it was still a relatively nervous time" P01

"at the time I went in for that appointment, I was in the process...I'd been living with the pain for a while and going to see the consultant or going to see the radiographer ... was all part of steps that I had to take before the right diagnosis to be achieved and so I wasn't squirming, 'oh, that hurts,' or so I didn't really do anything that I would have thought evoked anybody to go, 'are you alright, dear?' kind of thing. I'm a little bit, kind of, deal with it and so I probably wouldn't have given any signals that I needed emotional support or reassurance or anything like that but I think I probably would have come over as a fairly confident person..."

Some patients were struggling with feelings of fear or anxiety, or suffering the psychological pain of grief and loss; not necessarily of another person, but of a lifestyle, dream, ambition or hope for the future. Some also believed that these feelings should not be displayed, sometimes substituting what they believed to be inappropriate feelings with what they considered more acceptable ones, thereby disguising or concealing their suffering from view. Reasons for hiding feelings and emotions included a desire to co-operate in order to expedite the procedure, perceived cultural norms, or stoicism:

"...you don't want a fuss, so you quite often... yes, I have laid there in the most uncomfortable position sometimes, not wanting to say, 'have you got a pillow or two?" P10

"It's not so much these days but in my mother's generation to show emotion, to show distress was not, was a thing you didn't do. It's stiff upper lip and..." P25

I: "And I imagine you were trying to be stoical and brave and... R: (overspeaking) I was, absolutely, yes. I always try and be polite to people at least..." P14

The language seen in the transcripts and in my notes revealed a range in the intensity of these hidden feelings and emotions. Adjectives such as "fantastic", "massive" and "huge" were associated with, and reflected the enormity of, some positive experiences, while nouns associated with negative emotions ranged from milder "concern" and "nervous" through to "terrified" and "assaulted". The dread, fear and terror felt by some patients is illustrated in this quote:

"...I was gonna be thrilled if it was arthritis ... the thing I was most concerned about was I thought I might have had [a recurrence of a cancer] ... Cos you're desperate for them to tell you and they can't. And you're looking at their faces, do they look, how do they look... you know, it's dreadful, absolutely dreadful..." P03

Behavioural cues and hints from patients such as appearing unable or unwilling to co-operate with the examination can lead to a radiographer regarding a patient as "difficult" or "obstructive"; terms seen in the student and radiographer data. This can preclude the treatment of patients with understanding and compassion:

"...the actual woman who did the X-ray she was, she was alright but she was somewhat aloof, I think. I think I would say that that was the case. She was... the things she got me to do to get the picture she wanted, she didn't seem to understand that it was awkward or it hurt or anything like that" P09

"they [the radiographers] said, 'you need to get it straight' [patient was referring to their fractured elbow] I said, 'I can't get it straight, any straighter than that and I'm in agony.' With that a senior radiographer come in and said, 'what's all the noise?' They said, 'this patient is being obstructive.' So he said, 'what seems to be the problem?' I said, 'I fell on my elbow and I cannot get my elbow out straight,' I said" P25

Patients did notice and were appreciative when their radiographer appeared to pick up on, or sense emotional and behavioural cues. In the second quote the patient compared their experience with a previous one in which she had felt "dumped":

"...the first time she was amazing 'cos I was a little bit teary because it was suddenly...I knew I was gonna to have it... well, I don't mind the X-ray, I've had

those hundreds of...but I suddenly realised that my surgery was any minute now and she was really good and really understanding. She was fab." P17

"They really made you feel as if you were the one person there" P04

If compassion is to be expressed appropriately, the ability to detect and interpret communicative cues from patients is a valuable asset. The Twitter discussion did not provide any insights from radiographers themselves into the skills involved, and patients only commented in general terms that radiographers appeared to be able to sense their emotional state. Other than references to "picking up" something, and "reading body language" there were no data which enabled an understanding of how skills in interpreting verbal non-verbal and behavioural cues are developed apart from a single quote in a third year focus group suggesting that observing how the patient moves is one component:

"If you call from the waiting room and just depending on how they stand up for a start you can like...yeah...start like treating them differently..." FG3

That this quote came from a third year focus group with no similar ones in first or second years suggests that towards the end of the course students were becoming aware of developing expertise in observing and interpreting some of their patients' more subtle non-verbal cues. It may appear to be stating the obvious to comment that watching the patient is one component in this skill set, but it is one that can easily be overlooked by a radiographer whose focus is primarily on competent imaging; i.e. of the correct body part on the correct side of the correct patient, with or without their co-operation, and in as short a timeframe as possible. When observations of the patient are made, adapting interpersonal and communication skills in the light of these can constitute an expression of compassion in some cases and are explored next.

6.3.3 Adapting behaviours and communication

Radiographers and students become extremely adept at modifying their radiographic positioning in situations where the patient is unable to fully cooperate during image acquisition. Patients were largely unaware of this technical skill which did not feature in their perceptions when considering compassion, other than when it was perceived as lacking. Patients do however notice, value,

and sometimes even expect their radiographer to understand and give consideration to hidden or subtle emotional cues and to adapt their approach and behaviour accordingly:

"I think they should realise you're anxious so put you at ease. I think that's mostly, that's probably one of the most important things is to make you feel that everything's ok..." P05

Radiographers are aware of the need to adapt to the differing needs of their patients in order that compassion remains integral to the interaction:

"Yes - every patient is different and we need to adapt our approach according to this" // "Compassionate care should appreciate the psychological, social & physical needs of the patient, adapting your approach and communications as necessary to suit" RadTweets

Although some radiographers felt that adapting their care was achievable, there was honesty as well as perhaps guilt and regret that when workload pressures became so overwhelming, radiographers could not care for their patients in the way they wanted to. The interpretation I made of the symbolism in the emoji in this tweet was one of concerned contemplation:

"I have definitely been guilty of cutting corners and not listening to patients when super busy:-" RadTweet

Like radiographers, students did not offer detail as to how they might interpret cues to a patient's emotional state, only that they could gain impressions from patients as to their needs and respond accordingly:

"if you've got someone who definitely doesn't want to be there, you're being compassionate by being as, like, pragmatic with them as possible and if they give off the impression of, like, just get this done so I can go, and you receive that as like, okay, let's get this done so you can go, you're still being compassionate because you're understanding their needs." FG1+2

In this section, the data have shown that in addition to adapting their technical skills of image production, students developed and radiographers demonstrated skills and abilities which enable them to read, interpret and adapt to hidden or subtly given off communication cues from patients, although there appears to be a lack of awareness as to how these skills are exercised. They are, however, necessary for a compassionate response to a patient's suffering of physical and/or emotional pain; anxiety and fear in particular, but may be sidelined as task and workload pressures increase.

6.3.4 Giving information

From the results presented thus far in this and the previous chapter, a compassionate patient-practitioner interaction can now be described in broad terms as a calm, efficient and co-operative procedure brought about in part by offering informative explanations to patients about the procedure, given principally at the introductory stage of the examination. Sometimes at the end of the examination, information was also offered about what the patient could expect to happen next and patients noticed and appreciated it when this was the case. Occasionally patients took it upon themselves to ask the radiographer questions about the examination, but this was an uncommon feature of the data. Reasons for this reticence included patients' perceptions of a busy department in which there was no time for questions. Of interest was a curiosity voiced by some patients as to what the images revealed:

"They [the radiographers] say, 'that's a really good shot,' but then you never see it and some people may not want to see it I know, but when I first went into A&E when I'd fallen and broken my arm the nurse or the clinical, what is it? - nurse practitioner who saw me, he got the picture up on the screen for me so I saw it then so that was really interesting and in some ways I'd quite liked to have seen it" P33

"...and she also, what I quite liked was what she said was, 'would you like to see them?' 'Would you like to see them?' she asked me. I said, 'well, actually, I would" P10

The difference between these two patient's experiences is that in the first, the patient was shown the images by a nurse-practitioner later after the x-ray examination had been concluded; in the second by a radiographer at the time of

imaging. These data indicate that some patients appreciate being given information about what is on the images. In some cases this was mild curiosity but in others the feeling was stronger: patients attend for imaging because something is wrong and they need help finding out what it is and what can be done about it. In the same way that it has been shown that patients value a swift procedure, it is reasonable to infer that they might also value information provided sooner rather than later, although this would depend on the nature of the information and severity of its impact on the patient.

This sub-theme has demonstrated that radiographers are not necessarily privy to patients' innermost feelings such as anxiety and curiosity unless either the patient chooses to reveal them, or else the radiographer is adept at, and has the time to read and interpret any subtle cues. Also helpful is an understanding, however limited, of the patient and their situation.

6.4 Qualities and skills in understanding and relating to the patient

The choice of understanding as the topic for this subtheme was made as it expands on definitions of 'suffering with' (com-passion) to include mental processes that enable construction of ideas in the mind of one individual about how another might be feeling, together with a concern for their wellbeing. It incorporates ideas around an empathic relating with the patient which does not spill over into pity; instead applying skills of observation and listening in order to respond with compassion.

6.4.1 Key findings

- Empathy is one component of understanding;
- How closely a radiographer or student can relate to a patient affects understanding;
- Imagining the patient as a close family member promotes empathic connection between radiographer and patient;
- Empathy may include emotions such as sympathy but when equated with pity is unwanted by patients;
- Attentive listening to what patients say promotes understanding for the radiographer and dignity for the patient;
- Compassion is perceived from actions taken as a result of observing and listening to the patient;
- Acknowledgment by the radiographer of the patient and their predicament humanises and personalises.

6.4.2 Empathy, sympathy and pity

Empathy was the word most commonly used by all participants when asked to suggest words that mean the same to them as compassion. Patients further related empathy to compassion by adding an affective component, namely caring:

"I do think that they need to use the word empathy in here because empathy is part of compassion. If you've got empathy with that person you can become compassionate towards them by understanding what they're going through. That makes it easy to be compassionate whereas if you don't understand how that person's feeling, how can you possibly be compassionate?" P07

"I see compassion as being more having an understanding of what someone's going through and caring about it" P06

Data from radiographers who had themselves undergone medical imaging procedures and students working with radiographers who had only recently been students themselves suggest that understanding and empathy were seen in terms of relating to experiences and feelings, with the greatest understanding derived from having direct experience of being in the same or similar position or situation:

"I found that the recently graduated Exeter students that were also on placement were the absolute best people to talk to ... and they understood the pressures that were on us. They knew what we did and didn't know, they understood how to speak to us and how to help us and to a reasonable extent allow us to make mistakes to then develop them and that was a really positive thing" FG1

"A cup of tea and toast after an enema or swallow was so appreciated. We can empathise because we know" RadTweet

Where this was not the case, radiographers thought that imagining the patient as a close relative or friend might promote an empathic connection:

"Probably been said already but thinking "what if this patient was my friend/family member/friend of a friend?"" RadTweet

"I had in my first year, one of the radiographers has ... compassion for everyone, absolutely every single person that comes through the door and she said to me, on probably my second day, 'treat every single person as if it's your sister, your mum, your brother', and she said, 'you will never go wrong with your patient care if you imagine it's...', 'cos she said, 'at the end of the day, that is someone's mother, brother, sister, you think how they would like them to be treated." FG3

Sympathy was seen by patients as closely related to empathy and for some it was a desirable or expected attribute in their radiographer, but for others it was more akin to unwanted feelings of pity towards the patient. The following quotes represent patients' perceptions of this concept from these differing perspectives:

"I guess a bit sympathy as well because you are a patient, aren't you, so sympathy and empathy." P03

"I see sympathy's much, a bit more, poor you, as opposed to...which isn't necessarily what you want when you're undergoing something: you want someone that's not necessarily been through the same thing as you but that gives the impression that they understand what you're going through even if they actually don't" P06

Much like patients, radiographers differed in their perceptions of compassion and empathy and the point at which these spill over into sympathy and pity:

"I'd rather competence and respect if I was a patient not compassion that can easily resemble pity" // "empathy doesn't equate to pity" RadTweet

Patients' reflections on the meanings and synonyms of compassion and these closely related concepts of empathy, sympathy and pity indicate that a compassionate encounter involves the radiographer treading a fine line on one side of which is an appropriate response to perceived or expressed suffering, deemed compassionate by the patient, and on the other is either an absence of, or inappropriately expressed response. One of the strategies by which a radiographer can successfully navigate this is by listening to what patients tell them and acting upon the information given, thereby allowing patients to feel that their concerns have been heard. This might form part of the communication skillset of a radiographer which includes listening, observation and interpretation of patients' non-verbal and behavioural cues.

6.4.3 Listening and hearing

The data indicate that understanding is fostered by observation and interpretation but additionally students and radiographers can, and sometimes do check with the patient for any limitations that might make the examination more complicated or the patient more uncomfortable. Any lack of attention to, or disregard of what the patient says can lead to perceptions that they have not been listened to; conversely patients feel that they have been heard when the radiographer acts with what they have been told in mind:

"...because my back's so bad, it's quite difficult to lie flat and things in certain positions but she was very conscientious on all that and checked before she moved me or did anything or all that." P04

"She said and I can remember her saying, 'you comfortable', and everything so I think she did it, she did it well" P05

Acting on what is heard has implications for patients' physical and mental wellbeing. These quotes illustrate the positive impact on patients who felt listened to and understood. The first quote tells a story which lies in stark contrast to another patient's sorry tale of trying to convince the radiographer of an incorrectly written x-ray request form; the radiographer ignored the patient and the wrong body part was imaged, resulting in the patient returning for a second set of x-rays:

"Charming lady, she said, 'what are you here for?' and I said, 'right knee.' She said, 'your paperwork says your left knee.' I said, 'thank you for my GP again, he can't tell the difference between my left and right.' It's not the first time. So, she said, 'don't worry, I think I can change that', she said, 'although in theory we should get the right documentation.' I said, 'I understand that,' but she said, 'okay,' she'd do it, which was great 'cos saved me going back and do it all over again, and she did the X-ray of the hip and knee and very efficiently" P10

"It just goes against...if you go in and you've...nobody's...you feel like people aren't listening to you and you think you're going mad... It makes you feel better knowing that somebody understands and that's half the battle when you're not well or you've got a disability or something, is having that understanding." P07

Patients' feelings that they have been heard was also associated in the data with dignity. Dignity was mentioned in terms of physical properties, principally modesty, with inadequate gowns and other coverings leaving patients physically vulnerable or exposed, however dignity is also compromised when patients suffer feelings of humiliation. In this example neither the patient's voice was heard nor their need for privacy respected; the irony in the final sentence conveying the distress this patient felt at the prospect of vomiting in front of others when for the sake of finding a private space, their dignity could have been safeguarded:

"I think it was last year when I had a barium follow through. ... I told the nurse or the technician that I could have difficulty drinking this stuff and the likelihood is that I would be sick. 'No, you'll be fine, no problem, don't worry about it' and I said, 'well, you've been told.' You're expected to sit in the corridor and take it, there's nowhere you can go, privacy or anything, and I said, 'I can't drink this in a busy corridor with people sitting watching, it's not right.' And she said, 'well, I'm sorry, there's nowhere else,' and she directed me to the disabled toilet and I took it in there. This ... happens today, this is common practice there. You drink the stuff where they give it you in a corridor. I'm surprised they don't give you barium enemas in the corridor as well." P27

Listening and hearing on the part of the radiographer, or feelings of being heard by the patient are demonstrable components of compassion in the DI encounter. Understanding has been shown in this sub-theme to consist of an empathic relating with patients' situations and experiences, and attentive behaviours including observing and listening on the part of the radiographer. These skills and abilities are elevated towards compassion when incorporated with an acknowledgement of the person and their particular circumstances and an acceptance of these as integral to the encounter.

6.4.4 Non-judgmental acknowledging and accepting

Acknowledgment is a recognition of the person undergoing the imaging examination. It need not be expressed verbally, but can be communicated to patients using the skills which have been presented in this theme, namely observation of the patient, interpretation of their cues and behaviours, listening to what they say and acting appropriately, together with an empathic understanding of their situation and pain, whether physical or psychological. An imaging examination can be performed competently and satisfactorily, but this patient summarised how they felt when the relational skills presented so far were not exercised:

"I didn't want a hug and a 'you okay?' but it would just have been an acknowledgement that 'this is painful' would have had me better prepared [for the discomfort of the examination]" P11

During the interviews, patients sometimes chided themselves for some of the circumstances that led to their need for imaging, and expressed feelings of guilt for the consequences of their choices and actions, or in the case of this

participant, for their part in failing to prevent the sequence of events that led to a need for imaging:

"I went in there feeling guilt...I cried at one point and just a pat on the shoulder, and going, 'this happens all the time, don't worry about it, you've done everything right.' That's ... more accepting." P08

The inference that might reasonably be made from this is that for radiographers, non-judgmental acceptance, or else the effective concealment of any cues or behaviours which might communicate judgmentalism are worthwhile cultivars in addition to the other qualities, skills and abilities identified in this theme as components of compassion. Non-judgmentalism was considered a virtue in some quarters; in others it was seen as one component of an idealised performance of the role of radiographer. The final sub-theme presents evidence that students are socialised into this role through internalisation of those qualities and actions observed in their radiographer role models during placement. These can be negative, as well as positive influences in the process of becoming a compassionate radiographer.

6.5 Learning and developing qualities and skills in the process of becoming a compassionate radiographer

Many of the components of compassion presented in this and the previous chapter seemed to co-exist in patients' minds with their perceptions of the radiographer as a person when they constructed their accounts of their experiences. However, radiographers can do little to change the nature, purpose or reason for the task, the mechanistic coldness of the imaging encounter, nor can they influence the workload and time pressures created by the demands of patients and policy-makers for ever-quicker imaging. This creates an emotional dissonance for the majority of radiographers who wish to care for, and create diagnostic images of, their patient in order that whatever misfortune has befallen them can be remedied. Radiographers are made, not born, and in this sub-theme data which reflect this in the context of compassionate qualities, skills and abilities are presented; beginning with whether and how these may be taught and learned,

socialisation into the radiographic role on placement and how to manage the emotional demands thereof. Finally, the quality of proactivity and how it develops is explored in relation to its role in compassion.

6.5.1 Key findings

- Students and patients doubt that compassion, when regarded as an internal individual characteristic can be taught in the classroom, although empathy was seen as potentially teachable;
- Teaching behaviours that communicate compassion were seen by students and patients as more realistic and achievable;
- A distinction is made between teaching in the formal curriculum of the classroom and learning in the experiential and hidden curriculum of placement where radiographers are highly influential in shaping students' feelings and opinions;
- Students acquire a range of skills and abilities which enable them to manage their feelings and emotions. Some of these are as a result of their observations, whilst others are a consequence of sustained exposure to traumatic and distressing scenes;
- Patients, students and radiographers all recognise the unsustainability of feelings and emotions associated with suffering;
- Proactivity is elemental in alleviating suffering and therefore in compassion and is mediated by reflection and reflective practice.

6.5.2 Learning compassion

Debate lingers in the health literature since the first review as to whether compassion can be taught (see for example Lown, 2016; Sinclair *et al.*, 2016; Cathie *et al.*, 2017; Durkin, Gurbutt and Carson, 2018). Differing assumptions of compassion as an individual construct, an emotion or a behaviour were seen in the data from this study, which initially offered little to this debate. Discussions between students in their focus groups as they mulled over their responses to the question posed as to whether compassion could be taught were influenced by the same issues of whether compassion is an internal, possibly emotional characteristic or an expressed behaviour:

"It's a very difficult thing to teach really 'cos there's the argument whether it's inherent or whether you can, where it can be taught or whether there are certain aspects you can teach in terms of patient care..." FG3

Patients tended towards ideas of compassion as an innate personal characteristic, although viewing compassion through the lens of Goffman's Dramaturgical theory can clarify matters by enabling distinction of the person from the role. At the time of data assembly, this clarity was yet to emerge, and patients' failure to differentiate between the person and role of radiographer meant that most thought it could not be taught, although they could envisage the teaching of skills associated with compassion:

"I don't think anyone's compassionless but I don't think it's something you can teach in a conventional way" P22

"I think in that way you can teach people to act in a more compassionate way.

Whether in their hearts they're more compassionate or not..." P24

When students discussed the issue of teaching compassion they tended to refer to the emotional or feeling components, although there were concerns that teaching these would inevitably fail:

"You can tell people to say the right things at the right time but it doesn't mean they actually feel it" (murmuring, yea...) P-G FG

"I think, if someone doesn't care, it doesn't matter how much you teach them, they're still not gonna care" FG3

Patients made finer distinctions between teaching the emotional and feeling components of compassion and developing the skills and abilities which can be used to communicate and express it:

"I think people can be taught. I work with people on autistic spectrum who have to be taught how to show compassion and you can teach somebody who has no core skills, no understanding even of what's it's like to do it in order to make them socially enabled, to be able to build relationships with those who maybe aren't on the spectrum." P11

"I think if people can see, you can teach people that if you, if you have certain behaviours, you will get certain responses. ... I think in that way you can teach people to act in a more compassionate way" P24

The suggestion that compassion may not be teachable yet could still be learned led to the generation of a raft of terms from the data which broaden ideas around teaching and learning compassion, including:

"Develop" FG1

"Mature" P06

"Nurture" P07

"Instilled" P13

"Guide" P14

"Bring out" P18

"Pulled out" P28

Where assumptions were made that teaching equated with classroom learning there was scepticism around the idea that compassion as a feeling could be taught in the classroom, but there was an idea that non-didactic and more experiential methods might be fruitful:

"Well, you can't teach it from a book. You might be able to impart that through experience, if that's teaching, I suppose. P22

"I don't think you can teach it but I think you can probably learn it. Learn it by observing people that are very good and also if you've had experiences where perhaps you or your family members haven't been dealt with compassionately, so you've seen, or have been dealt with very, very well so it's about life experience." P12

Clinical placement is where students begin the process of gaining the experience referred to by patients and where such processes as developing and nurturing interpersonal and communication skills co-occur with the honing of practical ones as students put theory taught in the formal curriculum into practice. It is also where theoretical ideas and classroom discussions about ethical practice and the way patients are treated are tested and contextualised in the real-life, less idealised setting of the imaging department. Placement also houses the value system of the culture into which students enter, and so begins the shaping of a professional identity. This was discussed in the literature review (2.4.4) where comparisons were made between the formal and hidden curricula (Hafferty and Franks, 1994). Students noticed a mismatch between theory and practice on placement:

"In theory it's...it is just theory. When you're out in practice and you have, you are busy and there's thirty people in a waiting room or with an appointment time half an hour before and you've got emergencies so, actually, it's very, sometimes the theory doesn't match what actually happens, just purely because of the pressures on the department and the staff and I'd say theoretically, it's great... (Laughter) I find that isn't always that easy." FG3

Students also noticed and remarked on how the attitudes and behaviours of their radiographer clinical educators impacted their feelings and emotions. Negative attitudes in particular, which can become ingrained into the workplace culture came as a shock, followed by feelings of despondency, particularly on first placement as these first year focus groups show:

"you can work with someone really great and have a really good experience, they give you lots of praise and you feel confident and then you don't make many mistakes when you feel like that but then you get someone who rolls their eyes as soon as they see you because they don't want to work with a student" FG1

"I just felt despondent, these are meant to be my peers" FG1

Radiographers themselves acknowledged a sub-culture of negativity towards patients' perceived lifestyle choices:

"Consider the care to obese pts. New research (by me!) indicates diagnostic radiographers blame pts for their own ill health & poor imaging" // "Not just obese, alcohol liver disease, heart disease, lung cancer in smokers, diabetic ulcers" RadTweets

Students remarked on the negativity and judgmentalism of some radiographers towards their patients and there was shock at the apparent lack of compassion assumed of members of a caring profession. Students noticed that expressions of negative judgmentalism were at times made away from patients, but not always:

"...you'd actually get certain radiographers laughing because they thought it was funny that a, you know, 'how do they expect'...'they've got bad knees', or 'they're the size of an elephant', and stuff like this and this actually what they said...and you'd think 'well, wow'. They're still a human being so, yeah." FG1

"I think if there is an obese patient, sometimes I would cringe. Because they were just treated like they were sub-standard and just fried with doses." FG1

By 'sub-standard' the student meant that he perceived disdain towards the patient and the phrase 'fried with doses' refers in part to the higher doses of radiation necessarily incurred as exposure factors are increased when imaging obese patients. It also includes subjective appraisal of the patient's size and the suboptimal practice in selecting exposure factors variously termed 'cranking up, whacking up and bumping up' (Hayre, 2016). These feelings impacted on students' intentions for their own future practice:

"You can probably remember ones that have done, like good things, that helped you... similar to them and then you remember bad examples of radiographers that you potentially don't want to be like" P-G FG

"I think I can base a lot on my future expectations on how bad the radiographers were towards patients and knowing that I won't be like that and that's how I've come through my placement." FG1

Whilst students did not admit to their own judgmentalism towards patients, they were clearly forming judgments in other respects, particularly as these data show, towards their radiographer educators and there was an awareness of them as role models, for better or for worse. Longitudinal exploration of the data, however suggest that students also develop hindsight which can to some extent promote understanding and tolerance brought on in part by reconsideration of their attributions with regard to negative attitudes:

"...'cos in first year it's very easy to be like, 'oh, this is all terrible,' but in third year, it's like, 'I can see why, though,' and ... it's less anti, 'oh, they're [the radiographers] being really lazy,' more of a case of being like 'they physically can't do anything right now because everything is so stacked up," FG1+2

While these data might provoke dismay in the reader, other data allow for two points to be borne in mind. The first is that by and large patients' reports of their experiences were largely positive as were students' perceptions of radiographers and that negative role models were in the minority. The second is a reminder that judgmentalism is a human failing, not confined to radiographers, and patients were equally capable of expressing judgmental views:

"...there were, just one or two radiographers who were a bit more indifferent..."
FG2

"And some people, as I say, don't deserve [compassion]. If you're an angry, shouty drunk ... I want you to send that person a bill! ... And that it's alright for them to do that. No, it's not, it's not alright for you to go to A&E with a... I don't know...sunburn. Stop it ... you need a clop round the ear!" P08

Radiographers were aware of their potential to influence students' feelings and emotions and the consequent implications for their future practice, but watching the conversation on Twitter unfold it seemed that the discussion prompted a moment of insight, rather than any suggestion that this awareness influenced their day to day practice and behaviour:

"There are role models amongst us" // "I agree there are definitely those amongst us that are more compassionate. Lead by example?" // "Yes I think you are correct. We could inspire one another with good role models/practice" // "Let's not forget that we are role models for our students - they learn how to treat patients from us" // "Great point - 'note to all student mentors' - we have a chance to influence future workforce" RadTweets

Patients did report positive and compassionate experiences and students witnessed these. Positive role models were also observed by students who appreciated the uplifting effects:

"I think it makes such a difference when you can actually see that someone does enjoy teaching you and someone does enjoy being there and it does make you want to work to the best of your ability and look forward to graduating and I think that was really nice to see that people did actually enjoy the job" FG1

This sub-theme has shown how the differentiation between teaching and learning is mediated by the behaviours and attitudes of radiographers and their impact on the feelings and emotions of patients and students. In terms of data items coded, feelings and emotions constituted a large component of the dataset and were expressed liberally by patients across a wide range of both positive and negative experiences. Examples already presented include anxiety and fear and feelings of being rushed or hurried (5.2); confidence (5.3); calmness and reassurance (5.4). The analysis has highlighted the extent to which these emotions may at times be hidden by patients during the diagnostic imaging encounter, whether deliberately or unconsciously. Emotions were also felt and expressed by students and radiographers and included impatience and frustration, dismay and shock; also pleasure, enjoyment and confidence. These were at times also hidden, but at others perceived by patients. The next section explores the ways emotions are managed by students both as part of their own personal and professional development and from their observations of radiographers in the context of the pressurised and demanding diagnostic imaging experience.

6.5.3 Emotional development and management

Goffman suggests that performances can be idealised by concealing behaviours from the audience which might otherwise denote incompatibility with the role (Goffman, 1990 p52); the masking of verbal and non-verbal expressions of negative judgments by radiographers towards their patients in the previous section provide an illustration, and concealment by patients of emotions seen in section 6.3 could be regarded as part of the role of patient in the dramatisation of the medical imaging encounter. Hiding or supressing the expression of feelings is one way of managing emotions more broadly, and the term emotion management is used here to denote a range of strategies, skills and abilities which were used or developed by radiographers and students in association with compassionate practice. For example, students noticed how over the duration of the three placements how they adapted emotionally to the sometimes shocking scenes they witnessed or were a part of:

"I suppose things you hadn't seen before and just how that would affect you. I remember coming home when I was at [placement 2] in my first year feeling... you know after seeing something like a 20 year old in ITU after some sort of car crash or something finding that I was fine at the time but when I went home and actually dealt with the emotion... I was actually the more you see of that type of thing you become a little bit more used to it, you know, a bit more rational." P-G FG

Students and radiographers did not see this as synonymous with a decline in caring feelings, rather as development of a mechanism for protecting mental health and wellbeing so that they could continue to do their job:

"I don't think it's less caring, I think that if you have to be able to... if you found it shocking every time you probably wouldn't be able to face up to it on a daily basis you have to be able to deal with it and detach yourself slightly from it but still have empathy for the patients, you know not the other end of the spectrum, not care anymore." P-G FG

"I think it is important to not get too attached as it can impact your life and professionalism" RadTweet

Students in a third year focus group had an awareness of the balance that needs to be struck between emotional self-protection and the risk of becoming desensitised to the suffering of their patients:

"...maybe some people who might care too much and if you're so emotionally invested and you haven't been that day, it [would] just destroy you, so you kind of have to do have a bit of... // emotional resistance. // obviously, need to care but you can't let it get to you too much, otherwise you just wouldn't be able to do the job at all"

"Once I got to my third year, I think I got a bit desensitised towards the shock I had in year one, when I saw it and I was really shocked, and I think you do, even a student get used to it when you get to your third year, you think...which is not good because I don't want to be desensitised to it 'cos I think it's time to pack it in then..." // "...if I get to that point, I don't want to be a radiographer" // "Yeah, it either gets to a point where I don't...I'm not shocked by it, then I think I'm in the wrong job, to be honest." FG3

How students develop this 'emotional resistance' is not clear, but one student observed through their reading of facial cues a strategy utilised by radiographers to manage emotionally stressful situations:

"Like, on night shifts or something, had a patient come in at, sort of four in the morning, very traumatic like open fracture, there's blood everywhere, like it's all, like, it is quite stressful, but ... I dunno, it's whenever things have been particularly stressful, it is just everyone just kind of goes blank-faced, just to get things done..." FG1+2

This observation of a blank face perceived as emotional self-protection by the student might have been the same as that which led to patients' perceptions of a radiographer as 'robotic' when combined with those of the technical and mechanistic nature of the diagnostic imaging experience. This patient's comment illustrates the difficulty of distinguishing between an innate lack of compassion and a radiographer who is trying to manage difficult emotions:

"No, not even when I told her what had happened...when I told everyone else what had happened, they went, 'how?' and she was like, 'okay', so the impression was she had seen a lot that day." P08

The earlier finding that patients make less of a distinction between the radiographer as a person and the role suggests that they may be more likely to form the opinion based on their observations of the radiographer's behaviour that a radiographer is uncompassionate. Patients did, however, also recognise that the affective components associated with compassion, in particular feelings of distress at their patients' suffering could be unsustainable and become too great a drain on emotional resources. Factoring in the now well documented workload and time pressures can only exacerbate this. Managing feelings such that practising a more basic kindness was seen as more sustainable, although there was a concern expressed that even kindness could be compromised when time and emotional resources are stretched too thinly:

"I would imagine that healthcare professionals get very jaded from the compassionate point of view. You can't be compassionate all the time so I think that should be left in abeyance for when it's really needed but kindness should be there all the time." P14

"I mean, this is general NHS. I think there is a problem in terms of resources, in terms of...my perception is that it's quite hard, sometimes for people who are really stretched, staff, to be kind and that's the bit that goes and in a sense I think that's really important" P33

Radiographers might arguably be responsible for their own emotional selfmanagement, but they are not responsible for workload and demand. Students, patients and radiographers all agreed that support from the organisation would be beneficial:

"I remember being, when we were taught about emotional fatigue as well, as a person if you're always giving that care to people and nothing really comes back to you, it's quite difficult and you can get to that point where you don't really care anymore so I think more on the...when you're employed. I think there should be, probably, more done to encourage the staff to help them..." FG3

"...going back to what I was saying about whether or not you can teach compassion, if you want people to buy into this, the NHS itself has to buy into it and it has to treat its own staff with that in the first place before it can expect them to treat others." P32

That individual practitioners are not solely responsible for their own wellbeing and emotional support and that the organisation can play a part of may come as a novel finding to some frontline workers. It signals a gap between policy declarations of supporting staff and perceptions of absence of such support amongst the radiographers, patients and students who contributed to this study. This may account for some of the findings in the final sub-theme which explores the quality of proactivity.

6.5.4 Proactivity, reflection and determination

Proactivity and taking initiative are key to compassion; suffering is not alleviated merely through experiencing of feelings and emotions around suffering, but with an associated action aimed at alleviating or reducing it. Examples of this were seen in apparently spontaneous responses to patient's discomfort, pain or distress such as those categorised as 'little things' in Chapter 5 as well as verbal behaviours intended and non-verbal to reassure patients, thereby compassionately minimising the time spent suffering fear and anxiety. In this section, the quality of proactivity is explored; like some of the other qualities, skills and abilities presented in this chapter, such as emotion management and adapting radiographic and communication techniques, this was not readily perceived, nor were its associated behaviours interpreted as such by patients. The first example comes from a student focus group in which there was a spirited rebellion against the perceived normalisation of a lack of time; in this instance to talk to patients:

"I get sick of the excuse of they haven't got time [to talk to patients] or they're too busy (voices agreeing "Yea") it's not the patient's problem and if you haven't got time, make the time. If you don't meet deadlines, that's up to the people in charge of the department to allocate more time and more resources and so I just got fed up with that." FG1

The tone in the student's voice when making this comment came across to me as a determination to resist the demand to prioritise speed and throughput and to make the time to give the compassionate care that patients need. The following anecdote illustrates the stance taken by another student in the same focus group on experiencing similar feelings:

"I wheeled the patient back in, he had, ... cancer and he was talking about this experimental stuff he'd heard about in the States and he was explaining it to me 'cos I was a student, 'should look this up', blah, blah, blah and then I had the radiographer standing there like that as if to say... and I just said, 'I'm talking to a patient', and I said, probably shouldn't have, but I did 'cos I just got really fed up because was thinking I'm only gonna be a few minutes." FG1

In both these cases compassion is seen in terms of a refusal to accept a prevailing view that there is no time to give patients the care they need in the moment. Use of the phrases "sick of" and "got fed up" imply that this was not the first time students had encountered attitudes and behaviours inconsistent with compassion and suggests that feelings of frustration drove their consequent perceptions and actions. Frustration featured also when students recognised that they have a responsibility to be proactive in other ways and not shy away from opportunities to learn and develop their radiographic knowledge and skills. The second quote indicates that attempts at proactivity however can be frustrated however by a lack of support and encouragement:

"I think for me, it's not erm, to not avoid the challenging things, just stay in my comfort zone so I can go and do that but actually was I missing out on that things that were more challenging. Be more proactive" P-G FG

"but as a student you have to ask for help, you have to rely on these people and if they're not really helpful, you're just so frustrated that you can't get on and there's nothing you can do about it unless they become... unless you're working with the correct person" FG1

On the face of it, the link between proactivity and compassion does not appear obvious but is established thus: compassion has been clearly demonstrated in the presentation of these results as perceptible to students through their observations of, and reflections on their radiographer educators and role models on placement. Reflection is a pedagogical tool as well as a feature of radiographers' continuing professional development (CPD) activities and involves thinking about, and actively making decisions and choices as to how to act out the role of professional and compassionate radiographer. The link lies in the recognition of reflection, not only on events, but also on feelings (such as in this case frustration) as a mediator of proactivity in the enactment of compassion in radiography students (see Hendry, 2019 for a recent position paper on reflection as suitable pegagogy in promoting compassionate care in radiography).

6.6 Summary of theme

In this chapter the deeper processes which underpin the outward expressions and perceptible components of compassion during DI seen in the previous chapter have been presented. These consist of a diverse range of qualities, skills and abilities which can all be attributed to the radiographer, but are not their sole responsibility. Compassion may or may not exist in the personality characteristics of a radiographer; clearly it is preferential that it does, but performance of the radiographic role does not demand that radiographers continually feel the sometimes painful and exhausting emotions associated with compassion such as pity and sorrow towards another's suffering. The role only requires inclusion of those components of perceived compassion identified in Chapter 5 of this study such as kindness and warmth, and those from this chapter which include informative introductions, explanations and knowledgeable information-giving. Likewise, compassionate feelings in the radiographer such as empathy and sympathy need not be expressed in every radiographer-patient encounter; indeed if they were it may do more harm than good. Students and radiographers differ in their attitudes to genuineness and authenticity with regard to felt compassion which in turn impacts on questions about the relationship and boundaries for radiographers between role and person. Acts of compassion take time over and above that required for the basic imaging procedure but, like expression of compassionate feelings, are neither needed nor wanted by patients in every instance. A compassionate diagnostic imaging encounter incorporates

for the radiographer, components imperceptible to patients such as abilities in the management of emotions, and skills in observing and interpreting the sometimes subtle cues given off by patients that hint at their hidden feelings and emotions. Time over and above that needed to conduct the technical elements of the imaging examination is also needed for the exercising of these skills and abilities. Compassion arises not only through adaption of radiographic technique when positioning is uncomfortable or painful for the patient, but also in adapting the way a radiographer interacts with their patient. Understanding rather than empathy is a key component in this, prompting appropriate action aimed at relieving suffering, whether physical or psychological. Understanding is also a product of a student's development over the course and their perceptions of radiographers change and mature as a result. Becoming a compassionate radiographer consists for students of absorbing and assimilating positive role modelling behaviours and attitudes, and rejecting a culture of acceptance of heavy workloads and lack of time for compassion. For both students and radiographers compassion is a proactive and reflective process of decision-making and exercising choices. It also incorporates development of emotional resources that allow compassion to flourish and for this to be sustainable, support is needed for radiographers and students from those responsible for the management of their workloads; the most effective means of this being reducing the demands placed on them for ever increasing throughput and faster imaging and to change cultural perceptions that caring with compassion for patients is the sole responsibility of individual staff members.

Chapter 7: Theme 3 - The principles underpinning compassion in DI

7.1 Introduction

In Chapter 6, the deeper processes which underpin and direct the outward expressions and perceptible components of compassion during the diagnostic imaging encounter were presented. These were seen to consist of qualities, skills and abilities which may be innate, learned or developed and were attributable to, but not the sole responsibility of individual radiographers. The purpose of the final results chapter is to build on the findings of the previous two and present the universal principles from which compassionate care of a patient undergoing DI stems. These determinants of compassion in diagnostic imaging are derived and developed from the data and govern the ethos and practice of caring with compassion for patients who are undergoing a diagnostic imaging procedure. The sub-themes cut across the entire dataset and are abstractions from which the Francis Report's recommendation of "a focus on a culture of caring and compassion" might be met. The data are presented in three sub-themes; the first of which depicts the values of both individual practitioners and the wider organisation. The second reports those elements which bring humanity to the imaging encounter and the final sub-theme explores ideas around a perhaps under-recognised component of compassion: kindness.

- 7.2 Values of the individual and the organisation
 - 7.2.1 Key findings
 - 7.2.2 Personal and professional values
 - 7.2.3 NHS values
 - 7.2.4 Valuing the patient
- 7.3 Humanity and human connection
 - 7.3.1 Key findings
 - 7.3.2 Caring for and caring about

- 7.3.3 Respect and sensitivity
- 7.3.4 Connection, engagement and rapport
- 7.4 Kindness towards self and others
 - 7.4.1 Key findings
 - 7.4.2 Differing types of support for radiographers and students
 - 7.4.3 Kindness in professional practice
 - 7.4.4 Promoting a culture of kindness and compassion
- 7.5 Summary of theme

7.2 Values of the individual and the organisation

This sub-theme explores a range of ideas around values, which, according to the editors of a manual introduced into radiography training and education by the Collaborating Centre for Values-based Practice (CCVBP, 2019) has a richer and more complex set of meanings than is generally recognised (Handa, Fulford and Strudwick, 2018). When ideas around feeling valued were explored with patients, the findings in this sub-theme showed that the meaning of values has only widened. The dictionary definition of values as related to material or monetary worth (OED online) proved to be far too narrow for the purposes of this study.

7.2.1 Key findings

- ❖ Patients and students assume that radiographers' personal values align with those of the profession, however some radiographers' attitudes contradict that assumption;
- The values promoted in the NHS definition of compassion appear to be at odds with patients' perceptions of its businesslike nature;
- 'Making people feel valued' is an ill-defined concept in the NHS definition and is interpreted in different ways by patients as well as radiographers and students;
- Like compassion, 'making a patient feel valued' may not be a necessary part of every radiographer-patient interaction, feeling accepted is sufficient;
- Acceptance is a component of compassion.

7.2.2 Personal and professional values

Section 6.2.3 highlighted the lack of differentiation between the person and the professional role of radiographer in the minds of patients and some students; likewise they tended to talk about radiographers as though their personal and

professional values were also synonymous; thus entangling the person and their professional role. Of the six values which underpin the NHS, compassion is one, and quality of care is another, and the following quotes illustrate how patients and students valued caring both as a personal characteristic and a professional duty:

"Yes, wanting to care for people, a genuine caring personality" P14

"I just want them to have a duty of care." P16

"I think, overall, they have good members of staff there and they're very...they have a caring nature." FG2

Some radiographers, however were clear that professional values of caring did not necessarily coincide with personal ones and were not afraid to say so, suggesting a clearer differentiation between personal and professional values:

"Too many times I hear that if I didn't care I wouldn't work in a hospital, but they don't always go hand in hand" // "Turning up to work is not caring - It's getting paid" RadTweets

It is not known what motivated these comments; possibilities based on the findings from this study include choice of radiography as a profession based on an interest in the technical and mechanical aspects over the human and caring ones, or perhaps the comments came about as a result of stress and overwork leaving those that made them close to emotional burnout. It is also not clear whether the comments referred to caring for, or about patients. Regardless, the assumption that choosing to work in a health profession is automatically associated with an inclination or desire to care might be erroneous. Nursing and medicine are perceived in common parlance as vocations and being drawn to these sometimes referred to as 'a calling'. It may be that the tweets reflected a belief that radiographers do not feel 'called to their profession' in the way some nurses and doctors do. Nevertheless, students thought that recruitment into the profession should be based on personal values that were in accord with those of the profession and NHS:

"You need to recruit the right people, you need to recruit people with the right values to the right jobs, not just recruiting people through academic performance"
P-G FG

This was an interesting comment from a group who had recently passed through the entire course but who appear to have forgotten that recruitment is indeed governed on the basis that "students', trainees' and employees' individual values and behaviours align with the values of the NHS Constitution" (HEE, 2016). One patient felt that something was changing with regard to the call to enter any NHS profession:

"...and, unfortunately, it seems to me that that attitude to what you're in the NHS for is changing and so the idea of going into the NHS as a vocation because it's something you really want to do, it's a passion, it's at the core of you, your being, your soul, I just don't think [that it is any longer a vocation]..." P32

The jarring of ideas around values and the reasons chosen for working in the NHS led to an exploration of data around the values of the NHS itself and how these compared with those of the health professionals working in it.

7.2.3 NHS values

Presenting patient participants with the NHS definition of compassion generated some intriguing findings. The first of these come from data which clustered around the abstractness of the definition, and whilst many patients seemed happy with the sentiment, others were rather more sceptical with regard to the content and its real-world application:

"So the first thing when I looked at this is compassion, respect, dignity, carers, relatives, sensitivity, kindness. They are all abstractions, they are not concrete enough." P17

"Lots of buzzwords in there" P06

Patients also picked up on the phrase "the business of the NHS is..." For the most part patients were unhappy with ideas around a 'business mentality' of the NHS, seeing it as incompatible with values of compassion and care:

"...it annoys me it they call the NHS a business, it's not a business." P02

"The business of the NHS' ... I mean, that in itself is in conflict to ... It's the whole, I mean, I know the NHS is a business and that's, we're all well aware of that but it's just a shame that the business has to ... its employees' endeavour to offer compassion, to offer that sort of sensitive, human side to caring for people but it's being eroded really" P22

It is not clear how deliberate the choice of wording in the NHS definition of compassion was with regard to inclusion of the word 'business' but the data presented here and in previous chapters indicate an inverse relationship between the values seen and promulgated in the definition which focus on caring for patients and the less overt business-focussed values of speed, throughput and maximising efficiency which have been shown in this study to lead to dehumanising feelings for patients of being on a production line:

"I mean, what you're doing then is you're reducing medicine to almost a production, an input, an output system so you're speeding up the input system and saying, 'this is the best way to produce the outputs.'" P17

The notion of business-like also appeared in data from some patients who used the term when referring to the quality of their encounter with their radiographer. Sometimes this was to the detriment of the patient and their individual concerns as this example illustrates:

"They were quite business-like and efficient but they had absolutely no comprehension whatsoever of standing on my toes was gonna be agony..." P28

At other times, however, business-like was linked in patients' minds with positive experiences of efficiency, although the fine line between this and production line radiography was often crossed. As seen in Chapter 5, some patients were not unduly upset as for them this was in line with their expectations for a business-like imaging encounter; others however, noted the conflicting values of business and caring:

"...probably the case with lots of departments in the NHS, it is slowly being eroded by cutbacks and 'you must no longer do that,' and 'you can't offer that to

the patient because it's beyond our remit, you're not being paid to do it so we can't do it,' and what you really need to do is...figuratively speaking, put that arm around someone and offer some more human support and... so that's the whole business versus caring dilemma." P22

Some patients felt that the NHS as an organisation was becoming more wedded to the values of business than those of the people within it:

"I, personally, believe that people are made to feel less valued in the NHS than they were, only because of... it seems to be that finances has taken over from...it's what can we do cheaper..." P25

The NHS definition of compassion included a statement to the effect that over and above the provision of clinical care, 'making people feel valued' was a key component in compassion. Once again, however, there was no detail provided as to how this might be achieved and in this study, patients' perceptions of feeling valued were rarely mentioned, although their opinions on the matter were expressed when discussing the NHS definition. These data are presented next.

7.2.4 Valuing the patient

In this study no patient spontaneously offered 'feeling valued' as part of their experience and only commented on it when prompted by a discussion in the context of the NHS definition of compassion; I considered it too leading a question to ask patients outright whether they felt valued. Some patients agreed it was important, others were not so sure:

"This [is] very important, making people feeling valued and that they're part of their care and that, it, their opinion matters." P02

"I don't know how much I like the last sentence about making people feel valued but I think you have to, you certainly have to respect their concerns..." P15

There are clues in the data and quotes above as to how patients might be 'made to feel valued'. For example, respecting a patient's concerns (P15) or letting their opinion matter (P02) would necessarily involve a radiographer listening to the patient in order to hear their concerns and opinions, then acting in accordance

with these. From the findings presented so far, it is now known that the radiographer would also use their skills in observation and interpretation of their patient's behaviours to respond with compassion, if appropriate. For a radiographer to be able to listen attentively to a patient and make decisions as to any consequent action, i.e. give the patient their undivided attention, they may need to stop what they are doing; in this case the technical and mechanical elements of the imaging task. There are implications, therefore in terms of an increase in the amount of time needed to complete the examination.

There was a small body of opinion amongst patients which questioned the universality of 'making patients feel valued'. First seen in the data in Chapter 6, where one patient's opinions with regard to deserving compassion illustrated that judgmentalism is part of being human (section 6.5.2) and not merely an undesirable quality or character flaw in a radiographer or other health professional, this quote from a patient considering the NHS definition of compassion illustrates the challenge to a blanket policy of valuing patients:

"I suppose it's very hard...it's a very hard thing to define: compassionate care, (pauses) 'making sure that people feel valued and that their concerns are important' (sighs) I don't know about that last sentence (pauses) Sometimes their concerns aren't important and sometimes people don't necessarily deserve to feel valued. It's a very hard thing to define and, (reading out loud from the definition) 'individual patients, carers and relatives must be treated with sensitivity and kindness' – what, always? Even when they're weasels?" P08

The NHS constitution includes in section 3b a responsibility for patients to treat staff with respect (DoH, 2013), although respect appears to be defined differently; unless that is, patients are expected to ascertain their radiographer's 'priorities, needs, abilities and limits' in the short time available. It is equally unhelpful with regard to how staff can fulfil their responsibility for 'making people feel valued' when users of the service behave like 'weasels'.

This patient's testimony was also interesting when it became apparent that the interpretation of the NHS definition was that it was the responsibility of staff to 'make people feel valued' by the NHS, implying that staff must somehow communicate to the patient a message of their value, or worth. This patient

described how they struggled with feelings around their own self-worth having acted in such a way as to need to visit the emergency (ED) and x-ray departments. Feeling valued was not what the patient wanted in that moment:

"You're not there to ... (pauses) I don't know, (pauses) it's ... I don't need, I didn't necessarily need to feel valued.... I wasn't valuing myself particularly highly that day ... they made me feel that I wasn't the worst [person] in the world at a time when I was... I went in there feeling guilt...I cried at one point and just a pat on the shoulder, and going, 'this happens all the time, don't worry about it, you've done everything right.' That's not necessarily making me feel valued but it is... more accepting. P08

Feeling accepted, then was, for this patient at least, sufficient; like compassion, making a patient feel valued may not, after all, be an essential component of every patient-practitioner interaction. Acceptance, on the other hand, is a recognition of the human being and is therefore a requisite component of compassionate and humane care.

7.3 Humanity and human connection

'Seeing the person in the patient' is widely promoted in healthcare policy and protocol and is intended to draw attention to, and act as a reminder that patients are human beings as well as medical problems. There were some comments in the data for this study referring to being treated as a person, but again these lacked detail as to what this meant. I chose Humanity for the title of this subtheme in order to describe through the findings in this research the concepts which constitute 'seeing the person in the patient' in diagnostic imaging. Care and caring are key components. Respect and dignity are conjoined in NHS policy, and the findings in this sub-theme provide the detail which lies within these abstract concepts. Finally, communication, components of which are woven into the fabric of this report is presented in terms of a broader exploration of connection, engagement and rapport.

7.3.1 Key findings

- Radiographers and students talk in terms of caring for patients; patients talk in terms of being, or feeling cared about;
- Caring for is task-orientated, caring about is emotion-orientated and caring for and caring about reflect a cultural shift in patient care from relational to transactional;
- Patients and students, including those nearly qualified agree that caring for patients in a practical sense and appearing to care about them are the components of a basic level of patient care;
- Caring about patients is an emotion from which compassion arises, however it is emotionally effortful and demanding, sometimes overly so;
- Respect and dignity are linked in policy but in this study, respect is linked with sensitivity. Dignity is a feeling, not a way of treating a person;
- Connection and rapport are fostered through a communicative exchange between radiographer and patient, they are compromised when the exchange is unidirectional and perfunctory;
- The physical touch involved in radiographic positioning is part of the formal proceedings in the examination, whereas emotional touch, which may or may not involve physical contact is qualitatively different;
- Humanising and dehumanising occur at the patient-radiographer interface, not backstage in the viewing and staff areas of the x-ray department.

7.3.2 Caring for and caring about

Whilst empathy was the term most commonly associated with compassion by all my participants, there were myriad examples where the term 'care' was used interchangeably with compassion. At times patients who had started talking about compassion ended up referring to care instead, so closely were the two entwined in their minds. In the previous sub-theme, caring transcended personal and professional values for patients, students, and most, but not all radiographers. The findings presented next suggest that the meaning of a caring relationship depends on whether there is a relational component or not. Listening to patients about their experiences in this research highlighted an interesting difference in the discourse around care in that by and large, radiographers and students tended to talk about caring for, whereas patients talked in terms of being cared about:

"P(atien)ts often cannot judge competence but they do remember a feeling of being cared for" RadTweet

"The point is not that you have to feel compassion with every single patient but you should still make them feel like they're being cared for" FG1

"I see compassion as being more having an understanding of what someone's going through and caring about it" P06.

Thus, perceptions around the notion of care tended to differ between patients and professionals. Patients had an expectation, or hope perhaps, that their radiographer would experience caring feelings either more generally as a personal characteristic (i.e. 'being a caring person') or perhaps at least towards them at that moment in time. Either way, there was a further hope that the radiographer would act in accordance with those feelings during the imaging encounter, i.e. with humanity. Students and radiographers, on the other hand, tended to see care as practical actions or activities more consistent with the definition of care seen in the NHS Constitution as "safety, effectiveness and patient experience". Although it was not the case that all patients spoke of being or feeling cared about, nor that all professionals referred to caring for, the tendency to do so may reflect a shift first identified by lles in 2009 in the culture

of caring; from one in which there is a humanised relationship between patient and practitioner to one in which care is 'delivered' as part of a more impersonal transaction (Iles, 2009 cited in Maben, Cornwell and Sweeney, 2010).

Linked to the idea of a loosening of the relationship bonds between carer and cared is a suggestion first seen in Chapter 6 (section 6.2.2) in which appearing compassionate even if the associated feelings were not in evidence was acceptable to patients, students and some recently qualified radiographers. Seen also was a consistency between patients and students, including those close to qualification who were perhaps thinking more like radiographers; all felt that appearing to care about the patient was sufficient for a positive radiographer-patient encounter, whether or not compassion was expressed or perceived:

"If you ... don't have a lot of empathy but you can put on the display like it is, they're still gonna go away thinking someone's cared about them." FG1

"Yeah, well, it's nice to know that they do, do care about you. Make you feel a bit personal, talk to you as though they're interested in what's wrong with you, sort of thing, although they probably aren't particularly." P13

"As long as they feel, like, cared about and as long as you are happy delivering that level of care, then surely you are meeting everything you need to meet. I guess, yeah..." FG1+2

The comment from the third year student above "as long as you are happy delivering that level of care" was interesting in two respects. Firstly, the notion of a 'level of care' relates to data presented in section 6.2.3 with regard to an 'extra mile' in compassion. The inference that can be construed from these nuanced data is that caring for, and appearing to care about the patient constitute a 'baseline' of care in diagnostic imaging. Caring about is, then, an emotional source from which extra miles are walked and compassion springs; in other words, caring with humanity. Secondly, whether a radiographer is "happy delivering" it hints at the emotional effort involved in caring, whatever the level. Section 6.5.3 explored ideas around emotion management with radiographers hiding their feelings from patients and developing strategies for coping with emotionally demanding situations. That this emotional labour (Hochschild, 1983;

Bolton and Boyd, 2003) was becoming ever more effortful was highlighted with some force in this impassioned tweet. It encapsulated the frustration felt by some radiographers who perceived an increase in the demand for them to be caring and compassionate:

"Isn't me being engaged with the patient enough for compassionate care? Is sacrificing family, friends & golf course not enough?" RadTweet

Teasing apart these data has provided evidence that caring for patients with humanity and compassion is neither straightforward nor effortless, and further that there are implications in terms of emotional costs for radiographers. In the next section some of the ways this impacts on patients is presented.

7.3.3 Respect and sensitivity

Along with compassion and a commitment to quality of care, respect and dignity are yoked together to form another of the values in the NHS Constitution, although once again, the wording is abstract. It refers to respecting patients' "aspirations in life ... priorities, needs, abilities and limits" (DoH, 2013b) and assumes a shared understanding of what this means in practice. It contains repeated mentions referring to the rights of patients to be treated with respect and dignity, but in this study, there was no association of respect with dignity. Instead, respect was more closely associated with sensitivity, particularly in diagnostic imaging to the difficulties patients experienced in co-operating for the imaging examination:

"...respectful in understanding of your needs whilst you're putting your body in positions that may not be easy for you to attain." P32

"...my arm, yes, when I first went was quite painful and they were, yes, I think so, yes, respected that... [the patient was in pain and was unable to move it into the required position for x-ray] P33

Section 6.3 highlighted how the skills and abilities of a radiographer associated with observing and interpreting patients' non-verbal communicative cues can affect the quality and outcome of the imaging examination. These skills and abilities are necessary, but not sufficient if the encounter is to be considered

humanising and sensitivity to feelings of physical or emotional pain is a vital additional component if a patient's personal needs, abilities and limits are to be respected. In this study, dignity was associated with the emotional discomfort of vulnerability and sometimes painful humiliation; indeed, according to Chochinov, the very fact of being a patient means having "an acquired vulnerability and dependency imposed by changing health circumstances" (Chochinov, 2007, p184). Section 6.4.3 illustrated how dignity could be promoted through listening to patients and acting in accord with what they said even if this lead to a longer imaging examination time, required additional resources including expertise and equipment, was delayed or even perhaps cancelled. Patients need to feel a sense of dignity, not be treated with it. Treating them with respect requires that a radiographer listen attentively, as well as deploying skills in observation and interpretation together with the sensitivity to recognise that patients may not be able to co-operate due to physical or emotional limitations. To do all these whilst at the same time swiftly and competently performing the technical task of image acquisition is particularly challenging for radiographers and it is perhaps not surprising that at times and under pressure, patients may be seen by radiographers as "difficult", "obstructive" or "un-cooperative" and radiographers by patients as "robotic", "aloof" or "frosty". The final section in this sub-theme presents data about factors which can bring humanity to the imaging encounter.

7.3.4 Connection, engagement and rapport

A human connection between radiographer and patient was seen in the data both in physical and psychological or emotional terms. Radiographers engaged with patients in a variety of ways, although physical contact was limited to a radiographer putting their hand on the patient's hand, or very occasionally their arm around a patient's shoulders:

"He would take the time out, he wasn't scared to hold someone's hand who's crying and stuff like that." FG2

It was interesting that this action appeared to require courage. The link with taking time suggests that courage was needed to overcome a fear that this radiographer's peers would see this as slowing down the examination and be critical, as seen in the data in section 5.2 and in keeping with the 'hurrying culture'

identified by Challen and colleagues (Challen, Laanelaid and Kukkes, 2017). Also possible though, is a fear of becoming uncomfortably close to the patient, either physically or emotionally. The literature review explored physical and emotional distancing as an aspect of radiographic practice, both in terms of how a radiographer relates to a patient, and of radiographers' own emotion management. Reeves, for example, saw physical touch as a mediator of emotional distancing and the technical-mechanical nature of the radiographerpatient relationship (Reeves, 2012) and suggested that the personality types attracted to radiography are those for whom emotional involvement and connection is inherently less appealing. In this study, patients never mentioned being physically touched by radiographers, which was surprising since touching and palpating patients' bodies for bony landmarks is essential for accurate radiographic positioning and a successful x-ray examination. Perhaps patients found or knew it to be such an integral part of their experience which met with their expectations that they felt no need to remark on it. Alternatively, the manner in which they were touched may have formed part of their perceptions of a professional radiographer, moreover one who maintains a 'professional distance' from the patient.

Whilst mention of physical touch was all but absent in the data, patients reported that they were sometimes emotionally touched by their radiographer. In the first example the radiographer drew on their own experiences to align themselves with the patient i.e., "drawing parallels" (P01), in the second, the radiographer engaged with the patient using "little bits of humour" (P14) which left the patient feeling that despite the pain of a fractured foot the experience was a pleasant one:

"...she had a close relative who had had a hip operation relatively recently and...
just a bit of pleasant conversation drawing parallels – it was a nice softener – it
wasn't necessary, just a nice touch" P02

"I think levity is possibly the word more than humour. To have that because it's a serious situation: I've been wheeled into casualty from an ambulance having broken my foot badly so having that light touch was nice." P14

Engagement has been seen in the previous findings chapters in terms of verbal and non-verbal exchanges between radiographer and patient at all stages of the imaging encounter, but particularly the introductory and closing stages. Rapport was another term mentioned by patients and students which merited further analysis to discover what it meant in the context of a medical imaging examination. When rapport was absent, the exchange between radiographer and patient was unidirectional; the radiographer appeared to issue instructions aimed at achieving a principal aim of image acquisition. This was noticed by students and patients:

"No and they didn't have, they weren't ... no sort of rapport going, it was more 'I need you to do this'." FG1

"Well, the first thing he said to me was, 'have you got bones in your brassiere? And go in there and remove your clothes and take your brassiere off.' ...it was more or less orders what I had to do for the different positions. ... I felt, when I walked [into the x-ray room], you know that...what is it when you get with a doctor, that you feel you've got a good rapport with them. I felt there wasn't any connection" P20

Rapport when present involved the radiographer appearing to acknowledge and humanise the person as well as the technical and mechanical elements of the examination and inviting the patient into the conversation:

"A sort of rapport while you're there. ... Sharing ...in like I've said, 'sorry about the bed, sorry about the table, they're not the friendliest of places and if at any time you feel uncomfortable, please let me know. ... And asking you if there was any particular positions you were gonna find uncomfortable so that they could understand" P20

There were numerous other quotes particularly from patients which alluded to humanising and personalising, but these were more of an appeal for these elements to be present and did not offer specific detail as to its meaning:

"I think there needs to be a human interaction. You're not just somebody at the bottom of the ... you're there because there's something wrong with you. You're

probably a little bit worried and unsure so there needs to be a recognition of the human being." P30

"The whole sense of it was: got a job to do but they were taking that little bit of time to treat me like... a person, you know" P24

There was acknowledgment of the use of dehumanising language by radiographers and students when discussing the imaging examination out of the earshot of patients, further that it forms part of the socialisation process for students into the radiographic culture:

"Agree, the language we use is critical. The patient, not "the wrist", Mr Jones, not "the trolley"." RadTweet

"Maybe not calling people a chest x-ray or a foot – does anyone want to do this foot x-ray isn't a very good way of showing empathy or having a nice culture because we're dehumanising them, which... is turning them into a piece of meat or a body part, you see a lot of that... // How many times do we say oh there's 3 heads and an abdo outside (yea, yea, laughter) we do all do it...// Yea we do all do it, so maybe we need to change that. // Students even do that now" P-G FG

Reductionist language was first proposed as dehumanising in radiography in 2012 (Reeves and Decker, 2012), although it is a characteristic of a medical model of health and illness which stretches much further back (Engel, 1997). It was also seen as a coping strategy against the distress felt by nurses at the suffering of patients sixty years ago (Menzies, 1960). In this study, no patient reported being spoken to in terms of their imaging examination or body part and no clear link was seen between the use of this language 'backstage' and a dehumanised radiographer-patient interaction. Rather, dehumanising was more apparent when the technical demands of the examination over-rode the caring ones. In this example it is possible that the patient might have been aware of the "disconnect" noticed by this student:

"...when the [equipment] didn't really work properly or things aren't quite at the right angle or they can't get in the right position and they've got to do something weird with the CR plate and they just end up getting frustrated with the whole process then and then because they're frustrated with the process they stop

treating the patient like it's a human in pain and it's a bit odd, like it's a disconnect." FG1

The Francis Report linked depersonalising and dehumanising with notions of uncaring or burned out health care professionals. Technical difficulties cause frustration for a radiographer, which may be perceived by patients, but this does not mean the radiographer is uncaring. Indeed the opposite may be true and the radiographer's frustration felt because, through no fault of their own, they cannot care for their patient in terms of performing a timely examination which reduces the patient's suffering to a minimum. Gabriel argues that it is not staff members who should be shouldering the burden of the Francis report recommendations, but the organisation who should be supporting them (Gabriel, 2015). Support is the first constituent of the final sub-theme, in which the features and components of compassion that have been presented are brought together to inform the design of a model of compassionate patient care.

7.4 Kindness towards self and others

The data in this sub-theme were originally coded as barriers to compassion as they tended to reflect the absence of elements which would otherwise feature in a compassionate DI encounter. Kindness, physical and emotional support for radiographers and students are included in this sub-theme, as are cultural and professional norms that lighten without trivialising the sometimes dark situations in which patients and radiographers alike can find themselves. These norms also do not include stigmatisation of radiographers who engage with strategies such as mindfulness and therapeutic talking as ways of coping with stress and pressure. These findings provide useful information with which to underpin the design of a way of caring for patients undergoing diagnostic imaging which has compassion at its core. Individuals do have a part to play, but so do culture and organisations.

7.4.1 Key findings

- Support for students and radiographers is a component of compassion in diagnostic imaging;
- ❖ For students this consists principally of supervision of the imaging task they are performing, although there are differences in preferences with regard to the closeness of the supervision;
- ❖ For radiographers support is needed from their managers to prevent workload pressures from compromising their capacity to care for their patients with compassion;
- For both students and radiographers emotional support is valued and sharing feelings is becoming less counter to a culture which sees these strategies as 'hippy';
- Patients regard a radiographer as professional when the interaction is formal by nature. Compassion is perceived when levity and lightness, but not joking and laughter feature;
- A culture of compassion applies to the entire organisation, not just departments or individuals;
- Kindness and the freedom to share feelings and emotions with colleagues are key components of a compassionate culture.

7.4.2 Differing types of support for radiographers and students

Although patients did not talk about feeling supported during the imaging encounter they demonstrated an awareness that radiographers working under pressures of time and workload might benefit from support from their managers or the organisation. This patient for example was expressing an opinion that radiographers needed more time for compassion:

"And I think if radiographers could be told, 'that's okay', by the powers that be that might be helpful, if it is possible" P33

For radiographers and students the meaning of support varied. For students, particularly in their early years of clinical practice the main issue was supervision; i.e. a radiographer present or nearby whilst they were undertaking the imaging procedure. For some there were feelings of being left to manage on their own, which left them feeling anxious:

"they would say, 'just go and do that' ... you have questions and the worst thing for me was I'd say, 'okay, I'll just go and do this patient', and I'd have questions and then you try and find somebody to help you and there's, you know, there's nobody there to help so you're there and you're about to expose and you're full of uncertainty and that's just, you don't feel supported and then when you do ask questions, you know, you're a kind of an irritant, or when you want supervision, it wasn't there" FG2

Early years students tended to notice less the times when they were given the autonomy to perform the imaging examination and there were only one or two positive comments in this regard. By the time they had qualified however, these now ex-students had experienced variations in the levels of autonomy given:

"...at [placement 2], and you are there a bit more thrown in to it and just getting on with it and then at a second placement in [placement 9] ... it was one-to-one and you're constantly being watched and how you can't do anything without somebody watching over your shoulder" P-G FG

Although they found it difficult in the early placements, students found that by the time they were qualified they had benefitted from differences in supervision as well as the practice of radiography more generally. The phrase "does things" seen in the following quote covers a diverse range of imaging practices including radiographic techniques, departmental organisation such as staff rotas and room allocation, equipment manufacturers, and systems and work practices to name but a few:

"I think it makes you better in the long run, (Others: yea, yea) because if you go to just one place you learn how that one place does things well ... I went to 3 different sites as most people have and they go oh you did that there and students will say oh I did this differently somewhere else and although you [can find it

frustrating] ... you might think ahh, maybe that's not a bad idea // you take that experience... // yea, I think it's better for... I think I'm better for it" P-G FG

Students tended to generalise these observations to placement sites, rather than to radiographers within them. There may be an implication that students see differences in their experiences which reflect cultural differences between sites, but it is difficult to make meaningful inferences as individual students differed in their feelings of competence and confidence, which in turn will affect their perceptions of the level of supervision with which they feel comfortable. These feelings will also change and fluctuate according to the type and difficulty of the examination they are undertaking, amount of practice they have previously had, and departmental pressures. Within a placement site radiographers also differ in the amount of confidence they have in their own supervisory skills and abilities.

Variations in levels and types of support from their radiographer supervisors was attributed by students not only to departmental differences but also to lack of time, although the complexity of the issue was encapsulated well by a third year student who had the benefit of oversight. Replacement and upgrading of equipment and repair of equipment breakdown meant that some x-ray rooms were out of action, reducing capacity. Radiographers needed training on the new equipment, and those recently qualified were not yet able to supervise students. A&E (ED) workloads were often heavy and the cases complicated and time-consuming to image:

"... [Placement 3] is so very busy, they don't have a lot of time to set aside and let you have few goes at it. It's was very...it's too busy." FG2

"They were changing the equipment so they changed one room and then they were changing the other and they were training new [to the department] radiographers [as well as]...the radiographers in there to use the equipment and they had also three or four newly qualified student radiographers that couldn't supervise students so it was difficult to get experience in A&E. // A&E, yeah, because of one room, and it had different bits and pieces breaking as well. It's just like there was always a queue and, obviously with the difficult patients with the multiple, the trauma cases..." FG3

Examples of ways in which students felt supported included structured introductions to the department in which they were gradually introduced to imaging techniques by radiographers:

"we had link radiographers but they were like tutors and we'd go in and they would do ahhm, a teaching session especially when starting the first year, you'd have a teaching session in the morning, you'd do your extremities and then – and you had just a different sort of support rather than straight in when it could be anything and everything we had a real pattern to placement of what you were doing, certainly in the first few weeks" P-G FG

Students also enjoyed feelings of positivity and helpfulness from the radiographers and emotional support tended to come in the form of a nurturing approach when students were exposed to distressing situations; in the second quote the student was referring to post-mortem imaging:

"I felt that the people who I worked with were really...really positive towards me and really helpful. I didn't experience anybody do terribly...horrid towards me." FG1+2

"Certainly, [placement 10] they won't allow you to watch but they'll tell you all about it and you can look at images afterwards but they won't let you get involved but they don't either, they don't shield you and pretend it's not happening either but they just said, 'you've got a few more years before you have to do any of this kind of stuff' "FG3

Students witness, or can be involved with traumatic events including resuscitation attempts and imaging of the seriously injured, ill or dying. Students noticed differences in the emotional support available to them on placement and how they were sometimes left out of the team debrief where one took place. This was true at times also for radiographers:

"One of the other students was telling me yesterday they did...it was a CT scan, a post-mortem CT scan on a baby and all the, the CT staff were involved in this talk-down but because he was a student he was asked to leave: 'you're a student, you need to leave', but actually he'd witnessed it all as well." FG3

"...when they have a trauma or a difficult case and the other staff, especially if you're down in A&E, and they get together afterwards to talk about but actually radiographers are never included, ever, and as a student you're definitely never included or invited" FG3

Students noticed that trying to talk to radiographers about traumatic or emotionally demanding events were met with responses which tended to attempt to normalise them. They also felt that imaging department cultures generally were not supportive when it came to helping staff deal with emotional trauma:

"I also witnessed a death, yes, and I was not... I kind of wanted to talk about it and they were like, this is the job, part of the job, kind of thing, yeah." FG3

"That's probably something I think radiography departments in general are very bad at, very bad." FG3

Whether this was because radiographers were themselves struggling to confront and manage difficult emotions and felt unsupported emotionally was not clear; there was no suggestion that the departmental culture was intentionally unkind. Lack of emotional support was more associated with lack of time and workload and emotional stressors.

For radiographers, that their practice is sometimes stressful or can become so, was well established in the literature review, and this study confirms previous findings in this respect. Radiographers were particularly attuned to the potential for stress which, they felt, left unchecked could lead to burnout and become a barrier to compassion (seen colloquially in the tweets as a 'spanner in the works'). Radiographers also saw this as avoidable, and, commented in similar terms as patients in feeling that their managers and leaders had a part to play in preventing it:

"Burnout is a risk but avoidable if supported by management. Another spanner...

RadTweet.

Amongst radiographers there was a suggestion that sharing feelings and emotions around compassion and utilising self-care techniques such as mindfulness would promote both a radiographer's own wellbeing, seen in terms

of 'doing better' in the Twitter discussion and promote a radiographer-patient interaction that might be perceived by patients as compassionate:

"if we could talk about compassion at work, share stories etc we would probably do better #hippy // ♥ #hippy ♥ #mindfulness ♥// this is going to sound a bit hippy, but mindfulness at work would help to prevent dreaded 'autopilot' mode // supportive colleagues ⓒ "RadTweets

The 'heart' emojis used in these tweets symbolise love, and whilst no participant ever referred to love specifically, the association with being or sounding 'hippy' prompted ideas in the interpretation of these data around cultural norms and professionalism with regard to expressing emotions such as love and compassion in the brief, rushed, task-focussed and mechanical scenario of medical imaging.

7.4.3 Kindness in professional practice

Like emotions and communication, professionalism is woven into the fabric of these findings, rather than presented as a discrete theme. The concept of professionalism has been shown in this study to have strong associations with inspiring confidence in patients through a radiographer conducting a competent and efficient yet unhurried imaging examination; moreover one in which communication between radiographer and patient involved introductions and explanations. Many patients reported an interaction that included these elements and which was formal, if sometimes rather perfunctory; describing it as 'professional'. Friendliness was not included in descriptions of professionalism, but was regarded by patients as one of the desirable qualities both of a radiographer and of an encounter regarded as compassionate by some. Friendliness has been shown to consist of verbal and non-verbal communication cues, in particular eye contact and smiling, and humour was a topic mentioned spontaneously by patients in association with friendliness when describing their interaction with the radiographer. Since humour is a topic which has been highlighted previously in radiography research (Strudwick, 2012, section 2.9.1) I took the opportunity to explore further patients' thoughts and opinions around the subject. Positive and negative experiences were reported and it was clear that

experiences of humour in the interaction were highly subjective in both perceptions and effects. In the second quote, the patient was referring to the surgery for which she had undergone medical imaging, but it illustrates how the same experience can have profoundly differing effects from hilarity to fury:

"...and [the radiographer] hadn't got a sense of humour at all (laughs) just a quick laugh or anything is...puts anybody at ease, doesn't it? Yeah, just a little bit of light-hearted... anything really, yeah." P28

"He... unfortunately, dropped a screw in my foot and I woke up the next morning, coming back from surgery and he went, 'I need to...everything's all right, I've dropped a screw', but he said, 'it fell to your foot and it will dissolve so you'll be fine'. Well, I just thought that was really funny. I woke up going everybody says I've got a screw loose, that's perfect... It made me laugh. It didn't make my mother laugh, she was furious." P07

The subjectivity seen in these data mean that the ability to judge when humour was appropriate was every bit as important as the ability to read and interpret patients' verbal and non-verbal cues; already known to be one component of a compassionate encounter. One clue came from these patients who took the lead:

"so we had a little laugh about that but it was probably my lead..." P05

"...I'll always try and make a joke because if I'm really scared or nervous or uncomfortable, I try and be Miranda. It doesn't always come out right so I probably, I know I would have started it 'cos I would have been scared." P07

Other than this clue, patients could only emphasise the importance of not making assumptions with regard to humour and suggest that radiographers should try to make an appraisal of its appropriateness, although they did not have any suggestions as to how this might be achieved:

"I think you've got to take it from how the patient, not assume that you can ..."
P05

"It can, again, you've gotta know how to use it [patient was referring to the use of humour] and you gotta know, right, that's gonna work. Gotta look at someone and think, 'maybe not today'." P12

The detachment and absence of humour in terms of joking and laughter which characterised the majority of reported interactions was more in keeping with patients' expectations of a professional radiographer. These data suggest that compassionate professionalism may consist of high-level skills in interpretation and judgement of appropriateness with regard to humour, certainly in terms of joking and laughing with patients. This is in addition to the skills identified in Chapter 6 with regard to observing and interpreting patients' verbal and non-verbal communication cues. On being asked their opinion about the use and appropriateness of humour in the radiographer-patient interaction, one participant gave this response:

"I think levity is possibly the word more than humour." P14

This participant went on to say:

"I would much rather have somebody who's friendly...but professional. It's quite a tightrope, isn't it?"

Walking a tightrope is risky; the consequences of falling off can be severe, with pain and injury almost inevitable. The findings in Chapter 5 which identified characteristics of compassion during the interaction such as warmth, friendliness and appearances of interest and concern towards the patient could be described in terms of a metaphorical lightness, with compassionate professionalism the term that best describes the tightrope radiographers are walking when they bring levity to the imaging encounter.

The quote from patient P07 (previous page) with regard to initiating humour in the interaction as a way of managing their fear illustrated the use of humour in dealing with difficult or negative emotions. This was also seen in the student data in terms of the dark humour first described in the literature review (section 2.9.1). Initially perceived as shocking, over the course of the three placements, students gradually adapted, incorporating this coping strategy into their own practice:

"Yea, as a student in a lecture you wouldn't actually hear a radiographer or lecturer make comments of dark humour about a patient but it's a really good coping mechanism, it definitely... we do a lot of it and it may not be very professional but sometimes you have to make light of the darkness element and as a student I was quite shocked the first time a radiographer did that, I couldn't believe how inappropriate... it was quite funny and it did make me feel better and now I do it" P-G FG

It is not known whether any of the comments and remarks made by radiographers about patients and perceived by first year students as derogatory, negative or judgemental (section 6.5.2) were in fact expressions of dark humour. Students reported that radiographers laughed as they made these comments, but as first years they would have no concept of dark humour, having not been introduced to it prior to placement and would naturally be shocked by the apparent jarring of this behaviour with their perceptions and expectations about professionalism. Strudwick reported that radiographers laugh and joke about patients as a coping mechanism for the more challenging aspects of their work and to relieve tension (Strudwick, 2012). No patient in this study reported being or feeling laughed at or about, although some did hear talking and laughter from somewhere outside the x-ray room. In dramaturgical terms this is a manifestation of the difference in behaviours between front-of-house and 'backstage' i.e. the viewing and staff rooms of the x-ray department as well as elsewhere in hospital medical departments (Goffman 1959). Nor did patients report inappropriate use of humour during the imaging procedure, suggesting that radiographers err on the side of caution when making judgements and decisions as to its use. This may have contributed to patients' perceptions of formality in the radiographic interaction, sometimes referred to as 'being professional' and rarely seen as negative; only when formality crossed a line on the other side of which were adjectives such as 'cold' or 'robotic'. The types of support for individual radiographers seen in the first section, together with the identification of a compassionate professionalism in this one, form two strands in the design of compassion in care. The final strand which presents features of a wider culture of care and compassion is presented next.

7.4.4 Promoting a culture of kindness and compassion

The meaning of the "culture of compassion" promulgated in the Francis Report is open to interpretation. Aspects of departmental culture with regard to compassion which were exposed in these findings centred on attitudinal and behavioural norms, not only of radiographers towards their patients but also towards each other. Attitudes and behaviours of managers and leaders also impacted on radiographers and on students as they became immersed in departmental and hospital life. Some of the patients and radiographers in this study were quite insightful, taking a view which incorporated the wider organisational components of patient care:

"if you want people to buy into this, the NHS itself has to buy into it and it has to treat its own staff with that [compassion] in the first place before it can expect it to treat others." P32

"Comes down to culture within organisation you can have it all but it requires everyone working together" RadTweet

The tweets and retweets from radiographers and the speed with which the discussion moved compromised the context that is afforded to interview and focus group data, making them difficult to interpret. The radiographer's comment (above) was posted during a conversation about facilitators and barriers to compassion, and "it all" appeared to refer to compassion and "everyone" to the wider hospital community rather than just radiographers. The 'spanner in the works' seen by one radiographer as a barrier to compassion when stressed radiographers feel unsupported by management (7.4.2) was seen by another as a potential facilitator when support for staff is included in a culture of care and compassion:

"good spanner! not just any kind of management though - need compassion at every level:)" RadTweet

When radiographers on Twitter discussed other facilitators of compassion the idea that emotional support for radiographers was in some way 'hippy' (7.4.2) suggests that it ran counter to a predominant departmental culture of containing and concealing emotions. Although this was an elemental part of professional

practice, and part of the 'performance' in dramaturgical terms radiographers enact when with the patient, allowing emotions related to compassion such as sorrow and sadness into backstage areas away from patients was seen as unconventional. That radiographers raised the issue suggests that convention is beginning to be challenged.

Elsewhere in the data, kindness, which has been established as elemental in 'basic' or 'baseline' levels of care, was noticed by one soon-to-be-qualified student radiographer to affect the environment in terms of the emotional mood or tone:

"There's like, it's kind of a butterfly effect, anyway, 'cos as long as you're treating everyone around you with kindness, it kind of makes the atmosphere everywhere positive anyway..." FG1+2

This student's observation encapsulates the easily overlooked importance of kindness. When Charlotte Campling was proposing her model of intelligent kindness seen in the literature review, she made a similar observation:

"Kindness is not a 'nice' side issue ... It is the 'glue' of cooperation required ... to be of most benefit to most people" (Ballatt and Campling, 2011; Campling, 2015).

These subtle, intangible, unmeasurable elements, if consistently present, might perhaps over time develop into an ethos of care more recognisable as a culture of compassion.

7.5 Summary of theme

This chapter has presented those elements that underlie compassion in diagnostic imaging at its most elemental level. They motivate and drive the compassionate behaviours expressed by radiographers and perceived by patients presented in Chapter 5, and underpin the qualities, skills and abilities associated with compassion presented in Chapter 6, some of which are not entirely the responsibility of individual radiographers. This theme consists of two key elements, values and humanity which lie at the heart of compassion in DI and others offer components which might inform the design of compassionate patient

care for the future. The first sub-theme incorporates the values of individual radiographers as well as the wider organisation and NHS, rather than only those of the patient. Individual radiographers' personal and professional values were assumed by patients and students to be aligned, but this is not always the case; this highlights a key difference between the person and the role of radiographer. Likewise, the values presented by the NHS to patients and the public were at times at odds with those which underpin provision of health services broadly and medical imaging specifically. The 'business of the NHS' in its definition of compassion was noticed by patients, radiographers and students alike as concerned with efficiency and throughput much in the manner of a factory production line, but the business of the radiographers and students in this study has been shown to be caring for, and sometimes about patients. In DI 'caring for' tends to refer to physical and mechanical tasks around the imaging procedure. Caring about involves acts and behaviours ensuing when a radiographer experiences caring feelings towards their patient and constitutes compassionate care (the 'extra mile' seen in Chapter 6), although caring feelings require emotional energy which can become low if drawn on too heavily or frequently. The findings in this theme suggest that 'making the patient feel valued', a component in the NHS definition of compassion, is not essential. Acceptance however, in particular of patients' behaviours and choices that led them to need medical imaging prompts feelings of being cared about. Values of respect and dignity co-occur in policy and protocol however sensitivity to, and respectfulness of patients' beliefs and needs were associated in this study. Dignity was found to be the feeling engendered in patients when sensitivity and respect are followed by appropriate acts in accordance with these. The second sub-theme presented humanity, which is fostered through a dialogical exchange between radiographer and patient; rapport is the consequence but is compromised when the exchange is unidirectional and perfunctory. An emotional connection between radiographer and patient requires that the radiographer has courage; both to ignore the demands of a swift throughput and to be in touch with the suffering of their patient. Humanity and connection through touch is complex in DI; physical touch is integral to the performance of the imaging task, but there are qualitative differences between this and the physical and emotional touch of a compassionate connection. Although use of technical language and the referral

by radiographers to patients by their imaging examination or body part is commonplace, this may not have the depersonalising or dehumanising effect on the patient that has been previously suggested. It may instead be a time-saving shorthand which describes the task; information which is more pertinent to radiographers managing and sharing their workloads. Students notice that if the technical elements of the task preoccupy the radiographer unduly, disconnection and dehumanisation are more likely to occur. Equipment malfunction and breakdowns are commonplace, as are challenges posed by the complexity of the examination and ability of the patient to co-operate. As such, many of the components of compassion identified in these findings lie outside radiographers' capabilities and responsibilities, but could inform the design of a system which could be described as compassionate. One such component is support for radiographers in the form of helping or allowing them to feel that sufficient time and resources are available in at least four domains:

- to continue imaging patients despite equipment breakdowns;
- to supervise, albeit from a distance, students such that they do not feel 'thrown into' imaging patients without someone watching over them;
- to express compassion to patients when needed and appropriate through kindly but time-consuming gestures;
- to take time out to recover when the emotional demands of the patientpractitioner interaction are high or intense.

Radiographers need to be able to care for the students in their charge in terms of supervision of the imaging task but also to support students as they adjust to the initially troublesome differences and variations experienced between placement sites and the sometimes shocking dark humour used by radiographers that helps them cope with the physical and emotional demands and pressures of their role. A compassionate professionalism has been identified, in which the caring-for components of the formal proceedings in image acquisition co-exist with levity, kindness and connection; the caring-about of a compassionate interaction will organically follow, if it is needed. A culture of compassion as recommended in the Francis Report includes kindness and a feeling of freedom to share feelings and emotions without prejudice or stigma and is an organisational as well as departmental and individual phenomenon.

In the next chapter the findings of this and the previous two chapters will be discussed together with a critical review of the methodology, appraisal of the trustworthiness of the findings and further reflections on the research project and my place within it.

Chapter 8: Discussion and reflections

The aim of this study was to conceptualise compassion in diagnostic radiography by exploring and analysing the experiences, feelings, attitudes and opinions of patients, radiographers and student radiographers in 'plain film' projection imaging. This was in order to answer the research question which asked: 'What are the principal components in a conceptualisation of compassion in the care of patients undergoing diagnostic projection imaging?' The objectives were achieved by conducting interviews with patients, focus groups with student and recently qualified radiographers and acquiring data from radiographers in the form of an online journal club discussion of compassion on Twitter. Data analysis produced components of compassion that could be organised into three tiered themes; these revealed that compassion has greater depth and complexity than can be inferred from dictionary definitions alone. The research question was answered by constructing a layered conceptual model of compassion that explicitly identifies perceptible surface components and deeper, less detectable ones. Compassion is perceived when acts or behaviours are either observed or experienced, and seen in the surface tier are those constituents of compassion appreciable by the senses. Not all of the exhibited components of compassion are attributable to the actions of individuals, however and in DI, some are characteristic of the radiographic environment and in the role of the radiographer as a professional practitioner. However, the constituents of the surface tier cannot be made manifest unless activated by less discernible individual qualities, skills and attributes seen in the middle tier. These are the components of compassion which motivate and drive compassionate behaviours and acts, examples of which are provided from the data presented in Chapter 6. These qualities, skills and attributes are themselves insufficient for the expression and perception of compassion seen in the middle and surface tiers without the components proposed as principles in the final and deepest theme. These principles

incorporate intangible values, principally of kindness and caring which underpin the motivators and expressions of compassion.

Overall the model provides depth and interpretive detail to the definitions provided in Chapter 2, rather than simply reinforcing them. The model provides evidence that compassion, whilst appearing from definitions to be characterisable to the individual, is in fact a complex cultural, organisational, philosophical and ideological phenomenon. Approaching the research question from a constructivist position allowed me to explore the varying perspectives and experiences of all my participants without seeking to generalise them into a one-size-fits-all model of compassion. Instead I have been able to construct an interpretation of this complex phenomenon which takes into account context and individual differences in perceptions of compassion in DI.

This conceptualisation of compassion differs from others in the literature in the following ways:

- it does not present a list of attributes such as those seen in Dewar and colleagues' published findings, namely curiosity; connection; courage; collaboration; consideration; compromise and celebration (Dewar and Nolan, 2013).
- In offering a contextual and explanatory account of compassion it expands on conceptualisations which tend to reiterate definitions proposing compassion as feelings of sorrow at another's suffering together with an urge to act (Schantz, 2007; Sinclair, McClement, et al., 2016; Taylor et al., 2017)
- Dewar's model is proposed as a way of delivering compassionate relationship-centred care in which caring conversations shape both how nurses learn about their patients and what matters to them and how patient and nurse can work together to "shape the way things are done" (Dewar, 2011). According to the model proposed in this research, the radiographer-patient relationship involves a brief conversation at the start of the imaging procedure, in which understanding may be gained by the radiographer of some of the circumstances surrounding the patient's visit to the x-ray department together with limited knowledge of their patient's needs. There

is also a specific, technical task-based component with which the patient can co-operate to a greater or lesser degree, but over which they have limited choice as to how it is conducted.

- terms beginning with the letter 'c' are not as prolific in my proposed model as they are in Dewar's (2011).
- other key differences, such as in Dewar's model the unqualified presence
 of components such as Connecting Emotionally, imply that this is a
 characteristic of all nurse-patient interactions. In my research emotional
 connectivity is more nuanced, being bound up with the distancing integral
 to the interaction (discussed in section 8.2) and contextual to individuals
 and their situation at the time of imaging.

There are similarities in that components such as understanding can be seen in other models, although I propose this as a key quality the absence of which forms a barrier to empathy and hence compassion. Communication is also a feature in other models and conceptualisations although more overt in this proposed model is the non-judgmental acceptance of the patient. This, rather than being seen as a moral imperative, serves as a function to induce compassion through an appraisal of the deserving of suffering as seen in Aristotle's definition and philosophical discussions, (e.g. Nussbaum, 1996, 2014).

My research adds to the radiographic body of knowledge by providing the first conceptualisation of compassion in diagnostic imaging. It specifies key features of compassion as perceived by patients; some of these are expressed by radiographers, others are characteristics of departmental and organisational cultures and current political ideology. Particular aspects of culture which have been highlighted in this research are attitudes and behaviours, particularly with regard to emotions and emotional support for radiographers. Personal and organisational values underpin and shape these, and my research showed how these may not always be aligned. A further aspect is language, both in terms of differences of that used in front of, and out of earshot of patients, but also the language of business and production in an industry dedicated to care and caring. My research findings confirm some of those seen in previous work in areas closely associated with compassion in the radiography literature, such as care

and professionalism. The findings also inform other works, position and discussion papers in particular, with regard to ethical and moral practice and to education and training in compassion. My research augments research exploring patients' physical and psychological safety and the radiographic culture, and challenges conclusions from studies which reinforce ideas that individual radiographers are responsible for improvements to patient care.

The findings could also make a contribution to the nursing literature. It is not just radiographers who are experiencing workload and time pressures and the findings from this research offer some ideas that might allow compassion to flourish in fields outside radiography:

- the practising of critical resilience (Traynor, 2018) in which practitioners resist pressures to complete caring tasks faster at the expense of time spent talking to the patient;
- the proposal that expressions of compassion are not necessary in every patient-practitioner interaction. Further, that understanding a patient's needs through clinical questioning, combined with development of skills in observing and interpreting patients' non-verbal cues might enable nurses and others to exercise their judgment as to the needs of their patients more accurately and effectively;
- that whilst training in compassionate behaviours might meet management targets, organisational and management support, mainly in the form of allowing nurses and healthcare workers to feel that they have the time to give compassionate care is proposed as a more effective way of fostering compassion;
- a move away from the current focus on individual responsibility for compassion.

This chapter places the findings into the context of the background and literature review and discusses them in terms of the themes presented in the previous three chapters.

8.1 Components of compassion which can be seen and felt during diagnostic imaging

8.2 Qualities, skills and attributes associated with a compassionate radiographer

8.3 The principles underpinning compassion in DI

Section 8.4 considers the strengths and limitations of the methodology with ethical and methodological issues addressed and section 8.5 evaluates the trustworthiness of the findings. Section 8.6 consists of a reflective discussion of the project and my role and position within it.

8.1 Components of compassion which can be seen and felt during diagnostic imaging

In meeting the principal aim of this research which was to identify components of compassion in DI, the first theme also contains evidence contesting inferences made in responses to the Francis Report that individual radiographers are solely responsible for compassion in patient care. Cultural norms and values, and technical and technological factors also play a part. For example, first impressions of patients were not necessarily of the appearance or mannerisms of the radiographer, but of quickness, although there was a failure on my part during the interviews to differentiate between quickness in terms of the length of time spent in the x-ray department waiting room and that in the x-ray room itself. The quality of radiographer-patient interactions appeared to be associated with the taking of time to talk and listen to patients, yet the movement towards faster imaging offered by technological changes, in particular the advent of direct digital radiography (DDR) appears also to be appreciated by patients. Hayre et al have previously suggested that patients increasingly value speed (Hayre, Blackman and Eyden, 2016) and the findings in this study confirm this trend. The shared desire of both patients and radiographers for an expedited procedure appears to reflect a tacit acceptance of ideas and feelings around a production line culture noted in this and other studies, both in Hayre et als study and wider healthcare (de Zulueta, 2013; Crawford et al., 2014). In this study some patients did not appear unduly concerned or upset and found their experiences to be in line with their expectations. I suggest that patients' expectations have changed concurrent both with the shift in healthcare based on outdated medical models of health, but

also as a reflection of a deeper process, namely the embedding of neo-liberal ideals and values into healthcare culture. Kleinman's treatise on medicine's symbolic reality, in which words, feelings, values and beliefs bind cultural norms of the time with perceptions and expectations (Kleinman, 1973), offers a philosophical perspective which lends support to this proposal. Although patients appeared to value a swift procedure, they did not appreciate feelings of being rushed or hurried through, and the many references to a sense of being on a production line are testimony to this. With an average interaction time for plain film projection radiography of less than 3.5 minutes (Hartmann, Rill and Arreola, 2010) the time saved thanks to technology could be utilised by the radiographer to interact more fully with the patient, rather than to increase throughput. Shortening the time spent in the waiting room would then be an issue for those managing the flow of patients through the department rather than the radiographers undertaking the imaging.

Patients' physical and psychological safety and their wellbeing are preserved when compassion accompanies speed in the radiographer-patient interaction. Radiographers, students and patients all made comments about how a speedy imaging procedure left little time for talking, but a story about a patient who in conversation revealed that they were suffering unhappy experiences in their care home led to instigation of safeguarding procedures (section 5.4.2) is a concrete illustration of compassion in patient care. Less obvious examples of compassion are seen in patients' reports of what might be considered milder emotions engendered when radiographers and students make time to engage with their patient. A study of radiographer-patient communication by Pollard et al revealed the importance of explanations and information, with feelings of comfort, calm and confidence engendered (Pollard et al., 2019). In this study, patients' descriptions of their feelings when the introduction included a brief dialogue mirrored Pollard et als and included the low-intensity words "comfortable" and "pleasant". Although these might be dismissed as inconsequential, I suggest that they reveal compassion as a mechanism for preventing escalation of feelings or worry and anxiety. Despite reporting feelings of calm and reassurance as a result of a swift and proficient procedure, patients did not see speed and proficiency as constituents of compassion, rather as part of their perceptions of professionalism. Students and radiographers on the other hand, viewed compassion as

interwoven with technical competence and procedural proficiency in their view of professionalism. Having established that competence and proficiency proffer emotional benefits, viewing technical competence as an expression of compassion as well as professionalism is a novel finding, and its role in relieving the suffering of anxiety and fear is proposed as a key element in compassionate and professional patient care.

The benefits to patients and procedure from a dialogue that begins with the radiographer introducing themselves by name have been well documented in this research, but crucially are lost if the subsequent actions of the radiographer are to begin positioning the patient for imaging without explaining the procedure and asking whether and how the patient might be able to co-operate. Furthermore they could be missed entirely by even the most perceptive of radiographers as the consequence is patient compliance and co-operation. These are welcome when workload pressures are high, and consistent with radiographers' labelling of patients as 'easy' compared to 'difficult' ones who require more time or greater expertise (Strudwick, 2016). Problems arise, however, when unquestioning compliance leads to mistakes; incomplete or wrong imaging examinations were examples seen in the data. The impact on patients of a poor quality start to the procedure was sometimes strong. Patients used words like "assaulted" and "intimidated" to describe their feelings when instructed to remove clothing or lie down without explanation and these illustrate powerfully the vulnerability felt by patients at such times. There is therefore, a stronger message from these findings; safeguarding psychological safety impacts as directly on patient care as does its physical counterpart. In the Keogh review published at the same time as the Francis Report, the emphasis and recommendations were concerned only with matters of physical safety, focussing on such factors as death, infection rates and litigation costs (Keogh, 2013). This study has demonstrated that psychological and physical safety are of equal importance when compassionately caring for, safeguarding and advocating for patients.

A perfunctory interaction is also pivotal in creating patients' perceptions of radiographers as technicians, or colloquially as button-pushers. This is a phenomenon which continues to haunt radiographers both personally and professionally, despite claims that radiographers are no longer perceived as

technicians (Whiting, 2010) and is a potent finding. By asking questions about the patient and the circumstances that have led to their need for imaging, a radiographer can create positive impressions in patients that they are being cared for by a competent, skilful professional rather than a button-pusher. Where the interaction requires actions which are, based on the evidence presented in this thesis compassionate, patients perceive a radiographer who is both professional and caring.

The perceptible components of compassion discussed thus far have focussed on the technical and interpersonal aspects of the procedure and how these impacted on patients' feelings and emotions. Patients also appeared to base their opinions of the characteristics of radiographers they met on their role, seen principally in technical terms of the task of image acquisition. This was in contrast with other healthcare professionals and their disciplines, principally nurses and nursing, and consistent with Strudwick and colleagues, who also noted a clear differentiation in roles between radiography and nursing. The value of this finding lies in confirmation from patients in this study of Strudwick et al's findings which were based on data gathered from radiographers and departmental managers. Unlike radiographers, patients are less familiar with the radiographic environment and their data provided further insights into the differences between radiography and other disciplines from their descriptions of the chilly, dim and mechanistic environment in which the imaging task was performed. For radiographers, the xray department can become as familiar to them as their home environment, whereas patients are visitors passing through, so it is understandable that the unfamiliar and even alien highly mechanistic environment blends with the technical role in patients' minds to engender perceptions of radiographers as technological machine operators with personal characteristics to match. This would also account for some of my patient participants describing nurses as "more hands-on" carers; an interesting comparison considering that touching patients is integral to the satisfactory performance of any radiographic examination. However, that no patient, radiographer or student in this study mentioned physical touch implies qualitative differences between the expressive touch more readily associated with nursing (Watson, 1975) and the instrumental touch of palpation in radiography, with the latter entirely functional, impersonal and unremarkable. The speed and efficiency associated with the brief interaction

discussed earlier typify and further distinguish radiographic roles from nursing and other healthcare professions; aligning these findings with other radiography research which characterises the discipline of radiography as especially timebrief and task focussed (Murphy, 2006; Strudwick, Mackay and Hicks, 2011; Reeves and Decker, 2012). They are also factors confirming a characterisation of radiographers by Reeves as 'hit and run' carers (Reeves, 2018). A further contrast with nursing which offers insights into features which characterise radiographers is seen in the factors motivating radiographers to enter the profession. These have been explored to a limited extent and the findings in this research confirm others suggesting that an interest in technology is influential in the choice of radiography as a career, with care and compassion less prominent (Whiting, 2010); for nurses, help and helping were primary drivers (Wilkes, Cowin and Johnson, 2015). It would be a mistake however to make inferences from this as to compassionate characteristics of radiographers; those discussing compassion on Twitter exhibited concern and commitment to being caring health professionals. However the weight of evidence in radiography research suggesting that the patient is not the main focus for radiographers is difficult to ignore. In the absence of studies of recruitment in radiography, research into factors affecting job satisfaction and retention offer some insights; Hutton and Eddy for example found that features of the job such as CPD, team-working, workload and support are dominant influences (Hutton and Eddy, 2013). However, Hutton and colleagues later found that worrying levels of ambivalence amongst radiographers can be attributed to compassion fatigue and burnout (Hutton et al., 2014) suggesting that caring is also a characteristic of radiographers. A caveat must however be declared that the findings in their research applied to therapeutic radiographers. Other evidence from studies of job satisfaction in diagnostic radiographers is sparse, and some would benefit from improvements in quality, while others are rather dated, but point again to a focus on technology and other factors such as variety and autonomy as a source of job satisfaction. Involvement with patients tended to be an indirect motivator with the combination of patient care with technological factors more commonly reported (Vosper, Price and Ashmore, 2005; Grönroos and Pajukari, 2009; Lehmann, Meystre and Mamboury, 2015). Reeves and Decker suggest also that the aesthetics of producing a beautiful film or image are also factors; they propose

radiographers as image-centred rather than patient-centred (Reeves and Decker, 2012). Qualitatively distinguishing the characteristics of radiography from nursing and radiographers from nurses has been a useful exercise in conceptualising compassion in diagnostic imaging and has highlighted the complexity and contextual nature of compassion in healthcare outside of radiography. This means that any concept derived from a positivist methodology could not be meaningfully generalised across the healthcare professions. This illustrates the value of a qualitative approach to understanding compassion and the need to explore it in individual professions, rather than trying to find a one-size-fits-all model of compassion for the NHS. The unifaceted focus on compassionate individuals in policy responses to the Francis Report recommendations notwithstanding, there are nevertheless components of compassion that can be attributed to radiographers more personally and these are discussed next in terms of their individual characteristics.

8.2 The qualities, skills and attributes associated with a compassionate radiographer

Some of the characteristics of expressed compassion identified in the first theme reflect the duality of a role which demands that technical and interpersonal skills be exercised simultaneously, confirming findings from ethnographic studies of diagnostic radiographers (Strudwick, 2011; Strudwick, Mackay and Hicks, 2011). The clarity gained in this study with regard to manifestations of compassion detailed in the first theme has further highlighted the challenges of striking a balance between these two skills in radiography. The second theme in the conceptual model of compassion formulated in this study offers detailed specification of skills and qualities needed in a radiographer to meet these challenges. From the accounts of some patients whose experiences were less than ideal, it is clear that any expectation that radiographers can sustain appearances of care and compassion with authenticity whilst also concentrating on performing a technically demanding task under pressures of time and workload is unrealistic. This signals a limitation to any inferences from emotional intelligence research seen in section 2.7 that in enjoying higher levels of optimism and emotional self-control, radiographers might be well disposed to withstand stress. Patients and students recognised this and were largely understanding; patients appreciated appearances of warmth and friendliness towards them but accepted that these may not necessarily be accompanied by authentic feelings of caring or compassion. Radiographers fell into two camps with the majority believing that inauthenticity was unacceptable, but some also expressed concern that appearances of compassion could mask a lack of technical competence to an unknowing patient; an interesting twist on the ethical aspects of the technicalinterpersonal tensions in compassion. Some readers may find it disturbing to learn that authenticity is not an absolute prerequisite for compassion as it is so contradictory to radiographers' perceptions of caring professionalism, as well as professional and organisational portrayals of compassionate and caring health professionals. The findings from this study indicating that what is important to patients undergoing DI is a swift procedure, technical competence and an engendering of feelings in them that they matter may go some way to ameliorating for this disturbance. Seen in the literature describing emotional labour (Hochschild, 1983; Bolton and Boyd, 2003; Brook, 2005), a recognition amongst all participants that authentic feelings of care and compassion take an emotional toll on radiographers which is itself unsustainable further explains this counterintuitive finding.

The prevailing view amongst most participants was that compassion, authentic or otherwise, was a personal quality. Regarding individuals as compassionate only in terms of the perceivable components identified in the first theme reflects a blurring of the distinction between person and behaviour in which an act, say of kindness leads to perceptions of a compassionate person. Heider explains that humans have a tendency to attribute behaviours to internal causes, such as personality (Heider, 1958), thus it is possible to arrive at a conclusion that compassion is an individual characteristic when it is only the act is compassionate, not the person. Idealised visions of radiographers and indeed all healthcare workers see their personal qualities matching exactly those advocated and publicised by their professional bodies and the NHS. Uncomfortable as it may be to acknowledge, sometimes this is not the case and data from the discussion between radiographers on Twitter bear out this claim. Drawing on Goffman's Dramaturgical theory is helpful in distinguishing the person from the role, and the findings from this study show that for radiographers to perform a role perceived

as compassionate does not necessarily require heartfelt and authentic feelings of caring towards each and every patient. What it does require in the radiographer are skills and abilities designed to create impressions in patients of competence, interest in the patient and appearances of unhurriedness, all of which were presented in the findings chapters as components of a compassionate radiographer-patient interaction.

Also elemental in fostering perceptions of compassion is the individual quality of consideration. Unrecognised thus far in the literature as a component of compassion, it has been identified in this study as key to prompting the acts of thoughtfulness and kindness now associated with compassion. More needs to be discovered about consideration, although in this study it was seen in the context of DI in terms of radiographers interrupting or extending the core imaging procedure to attend to a patient's needs *without being asked*. To patients, this appeared as spontaneous expressions of small gestures and acts of kindness, seen in the data as 'going the extra mile'. However the data suggest that this apparent spontaneity is in fact a considered response to skilful observation by radiographers of either expressed or less overt cues such as verbal or non-verbal expressions of physical or psychological pain or discomfort from patients.

A finding from this research that expressions of compassion are not necessarily wanted by patients runs counter to that inferred in some quarters from current dogma. It has already been established that some patients are satisfied with a quick in-and-out imaging procedure, providing it includes a brief dialogue and not a series of commands from the radiographer. Other patients commented that imposing a blanket policy could lead to unwarranted expressions of compassion which could be misinterpreted as pity and would be perceived as, in their words, "fussy" and even "would have got my back up a bit". Anna Smajdor reasoned that compassion was neither necessary nor sufficient in good healthcare from her perspective as a practical philosopher with a special interest in medical ethics (Smajdor, 2013). Her argument was based on an idea that good care can still be given in the absence of compassion, and evidence from the patients in this study reinforces her view. Compassion could then be "wheeled out when necessary" as one patient participant expressed it, although this would also require time to switch attention between task and patient, skills in reading and interpreting non-

verbal and behavioural cues from patients and consideration of whether compassion is an appropriate response.

It was established in the first theme that compassion is only apparent to patients when it is expressed, and in the second, that patients may suffer feelings of physical and/or psychological discomfort and even pain without giving voice to them. In the analysis, this was interpreted as patient behaviour intended consciously or unconsciously to help the radiographer expedite the imaging procedure or to behave in a socially acceptable manner, but prompted a question as to the consequences of this for patients' emotional wellbeing once out of the x-ray room. Patients not only hide their discomfort but also their curiosity and concerns with regard to the outcome of the examination and most commonly are no closer to knowing their diagnosis having had their x-ray, since radiographers do not routinely show patients their images. Factors in a radiographer's reluctance to have a conversation with the patient about what they see on the images include: unclear guidance in their professional Code of Conduct as to scope of practice in this respect; shortage of time; lack of confidence in image interpretation and fear of complaint. A response from one of the SoR's professional officers to a query I raised with regard to radiographers' remit with regard to showing and discussing their images with patients suggested that reporting radiographers who have undertaken further training are more likely to feel able to deliver information to a patient about what they see on the image. Rowe and colleagues concluded recently that reporting radiographers' competency in interpretation of chest x-rays was comparable with that of their radiologist colleagues (Rowe, O'Riordan and Woznitza, 2019). Findings like this might bolster radiographers' confidence in their image interpretation capabilities, although they might also benefit from support and training in having potentially difficult conversations with patients about their images. Image evaluation is an operator duty under IR(ME)R, so any qualified radiographer should be able to discuss images with their patients, subject to appropriate departmental operating procedures (DoH, 2017a). Recent technological innovations might also bring something to bear on this; Hayre and Atutornu envisage a future in which Artificial Intelligence (AI) replaces some of the reporting functions currently undertaken by reporting radiographers and radiologists. On the one hand this might inhibit radiographers from developing their image interpretation skills through lack of

practice, but on the other, if used in image interpretation training to confirm what they see, Al might promote radiographers' capability and confidence to discuss their patients' images with them. This could potentially offer a time-saving route to a faster diagnosis and, important to the research question, compassionately reduce the time spent by the patient in a state of uncertainty and anxiety. In their review of the literature, Cox and colleagues suggest that there are "secondary benefits" to be gained from an encounter with a radiographer in addition to abnormality detection and diagnosis. These include radiographer-patient communication and engagement, including providing reassurance (Cox, Cavenagh and Bello, 2019). Communication, engagement and reassurance have been identified in this research as components of compassion and radiographers might in some circumstances be able to reassure patients by sharing what they can see on the images. Where the news might be disappointing or distressing, appropriate training and support for radiographers in giving upsetting or bad news would be a precondition to this suggestion. Alternatively guidance could be compiled so that radiographers are clear about what and how much information they could share with patients about their images.

For radiographers to determine whether and how compassion should feature in their interaction with the patient requires an understanding of their physical and emotional needs by identifying or relating with them in some way. Empathy was a term most commonly heard from my participants and seen in the literature in relation to compassion, although Smajdor *et al* argue that, like compassion, empathy is neither necessary nor sufficient to assure ethically good patient care (Smajdor, Stöckl and Salter, 2011). Although some patients found an encounter with a radiographer which did not contain empathic or compassionate features upsetting, for many the worst they felt was "ruffled" while others were "satisfied". It seems reasonable to deduce from these findings that Smajdor is correct in her assertion that for patients experiencing these milder emotions at the time of imaging, neither empathy nor compassion were necessary for the provision of good care.

The debate surrounding compassion as an inherent individual characteristic may not have been fully settled in this research, but more is now known about the underlying qualities, skills and abilities which when expressed create impressions in patients of compassionate radiographers. The difficulties which humans experience in distinguishing between person and behaviour is likely to be the premise upon which the belief that compassion can be taught is based; were it that simple, radiographers and others identified as uncompassionate could be required to attend appropriate training in behaviours associated with compassion, perhaps some of those identified in this thesis such as smiling when greeting a patient. It has already been established however, that it can be a mistake to attribute behaviours to personality (Heider, 1958), and that external or environmental influences might be equally likely factors. Training compassionate behaviours in that case would be doomed to failure in the long term if it turned out that a toxic work environment, perhaps one featuring unsustainable workloads was found to be a contributing factor in patients' experiences of uncompassionate care. Doubts about compassion as teachable notwithstanding, there is a suggestion from this research that it could yet be learned, although whether classroom or placement is the most effective location has not been ascertained in this study. A raft of terms seen in section 6.5 hint at placement as the more likely; notions such as "develop" and "bring out" imply a social process of fostering a trait or inward quality, whereas "instil" carries connotations of compassion as more akin to a behaviour whose outward expression might be more readily, if less meaningfully or sustainably taught in the classroom. However, skills in observation and interpretation of verbal and non-verbal cues which are now known to underpin compassionate behaviours could be considered as a pedagogical strategy, along with those in reflection already suggested (Hendry, 2019). These could be added to the existing research base in communication skills teaching in radiography (Kurtz and Silverman, 1996; Kurtz, Silverman and Draper, 1998 in Bleiker et al, 2016; Booth and Manning, 2006; Booth, 2007, 2008). The focus group data suggest students develop, rather than being explicitly taught skills in observing and interpreting patients' verbal and non-verbal cues on placement, but once qualified these important skills become casualties of a heavy workload and throughput pressures. However, these skills also appear to be of secondary importance in students' expectations of what they are training to become, which seemed to be primarily a technical role. This is consistent with findings from Reeves (2018) who observed that little had changed over a decade since Whiting first remarked that students noticed the priority given

to technical competence over patient care in their education (Whiting, 2009). The open questions at the start of the focus group discussions in this study revealed that students chose to talk first and for longest about the challenges of gaining technical mastery. This appeared to have left little capacity in their minds for considering interpersonal and human aspects of the encounter. An informal enquiry to radiography educators on Twitter confirmed that radiography programmes prepare students for the human and interpersonal as well as the technical aspects of radiography and in their 'About radiography' section of the website, the SoR say nothing that would suggest that radiography is a purely technical role (SoR, 2018). In her doctoral thesis however, Jane Harvey-Lloyd notes the mechanistic and product-driven nature of the SoR's model of preceptorship (Harvey-Lloyd, 2018). It may be that the challenges for individual radiographers in reconciling the technical and interpersonal in patient care may be the same for their professional body when promoting radiography as a patient-centred profession.

Despite the technical focus to students' reports of their experiences on placement, they did also develop an interesting range of qualities not seen in the radiography literature to date. One of these was hindsight; for example final year and recent post-graduate students viewing early placement experiences reported emotional adjustment to the upsetting and sometimes shocking scenes they witnessed and encountered on placement. There was a lack of detail as to how they made these adjustments, but students were adamant that they had not become less caring as a result of becoming somewhat inured to the suffering of their patients. It appeared that they assimilated and normalised it to the context of hospital life and into their professional identities and raises questions of how personal and professional identities interact in the course of their training. Work is underway in radiography research and has so far identified a diverse range of factors shaping professional identity development. These include developing selfconfidence, gaining membership of a radiographic community of practice (Harvey-Lloyd, 2018), the wearing of a uniform (Strudwick, 2014a) and the influence of role models (Hyde, 2015). Reeves has commented on the emotional effort this entails (Reeves, 2018) and research exploring professional identity development in medical students has identified emotionally demanding tensions between idealism and reality and between involvement and detachment (Helmich

et al., 2014). At the centre of these axes lie personal attributes including beliefs and values and the interaction between these and the requirements of professional duty is a dynamic emotional force which shapes professional identity. Helmich and colleagues went on to conclude that:

"Respondents were mostly able to resolve them positively, leading to favourable outcomes such as increases in empathy or confidence. But they could also resolve tensions in unfavourable ways, which led to outcomes like increased cynicism or detachment. Feeling and handling emotions was a socially constructed process" (Helmich et al, 2014, p355).

Resolving these tensions positively may be conducive to compassion. Goodrich, for example, argued that "Going beyond the professional boundaries can allow us to be compassionate" (Goodrich, 2016, p3). By this she meant that allowing personal values of humanity and kindness to spill over into their professional lives enabled healthcare practitioners to practice with compassion. However negative or unresolved tensions can cause difficulties for radiographers, with the Twitter data rife with examples where radiographers expressed feelings of dissonance and physical and emotional exhaustion. These were attributed to unchecked demands for ever greater and faster throughput and feelings of guilt compounded by frustration at perceptions of a requirement that caring and compassion be more overt and explicit. In common with other healthcare professionals, radiographers struggle to reconcile personal and professional boundaries and suffer emotional dissonance such as the guilt and frustration seen above as a result. The resulting stress and burnout were well documented in the literature review and confirmed in these data. More recent research has empirically established a link between emotional dissonance and stress and burnout (Andela, Truchot and Van der Doef, 2016) and with compassion fatique (Clarkson et al., 2018). Coping strategies have been explored in radiography research and in common with other health professions (Blomberg and Sahlberg-Blom, 2007; Helmich et al., 2014), emotional distancing has been noted as a strategy used by radiographers to manage difficult emotions and stress (Reeves and Decker, 2012). This deliberate or unconscious placing of an emotional space between a suffering patient and caring radiographer has been shown as a protective function for self-care. Unfortunately, the appearances to patients of behaviours associated with emotional distancing might be interpreted as a lack of compassion and, as illustrated previously, in failing to distinguish between person and behaviour, be attributed to the personality characteristics of a radiographer and perceived as depersonalising and dehumanising. Self-care is an aspect of professionalism which is promulgated but less well supported by the employer and such strategies as cultivating resilience tend to be added to the pile of responsibilities required of so-called autonomous practitioners. Two findings in this study might offer solutions to the difficulties identified when distancing is adopted as a strategy in self-care. The first resides within radiographers, but the second does not, and incorporates Helmich et al's idea of feeling and managing emotions as "a socially constructed process" (Helmich et al, op cit). The first finding concerns the notion of proactivity presented in section 6.5.4. This was displayed as a refusal to accept a perceived status quo, namely that departments are too busy to give compassionate care to patients; that students asking for help or supervision are a time-consuming nuisance; that there is not time to listen to patients. Sim and Radloff attributed a lack of proactivity in radiographers to low self-esteem and apathy which in previous years was linked with medical dominance (Sim and Radloff, 2009; Yielder and Davis, 2009). However it would appear that the relentless demand for faster and more efficient imaging coupled with a lack of resources and support has replaced subservience as a principal factor in undermining proactivity. There is hope, however. Traynor links proactivity with critical resilience to proffer a notion of a practitioner who is informed about the political and policy forces shaping their working practice and, rather than complaining, resists them (Traynor, 2018). Based on the findings from this research, radiographers could practise critical resilience by refusing to subscribe to the hurrying culture, or taking the time to include acts of compassion when needed. In her thesis Harvey-Lloyd identified proactivity as a quality in the successful transition from student to radiographer (Harvey-Lloyd, 2018, p31) but it was absent in Taylor's conceptualisation of compassion in radiographers. One possible inference is that the energy required cannot be sustained under the physical and emotional demands of workload and patient care. These hitherto nebulous concepts such as hindsight and proactivity may be worthy of further exploration in the future, particularly in relation to the proposal of reflection as a pedagogical tool in compassion (Hendry, 2019).

The second finding which would address the issue of radiographers appearing to be uncompassionate people relates to support for radiographers in order that they may do their job (i.e. image the patient) with compassion. Support has been identified in this study as falling into four distinct categories. Adequate time to express compassion to the patient if needed is one, and emotional support for radiographers is another. This may involve formal debrief after a particularly traumatic event involving wider team members, or a cultural de-stigmatisation of a more informal sharing of feelings with supportive colleagues. Management support of the workloads that beyond doubt compromise radiographers' capacity to care is a third. A fourth, for students, is preceptorship, a structured form of mentoring which should be more expressly incorporated than it is now. First introduced in 2005 (Nisbet, 2008) it was and remains only a recommendation for good clinical practice. Both radiographers and students could benefit from professional and ongoing support with the emotional ups and downs of radiographic healthcare practice and in so doing foster healthy development of emotion management skills as well as technical ones.

One of the stronger messages from this research is that, despite political and ideological emphases on individual responsibility for compassion, these research findings are providing traction for the notion that radiographers cannot do this alone. Whilst there are qualities, abilities and skills that can be deployed which enable radiographers to judge when expressions of compassion are appropriate, the evidence from the final theme demonstrates that these are necessary, but not sufficient components of compassion. Deeply held values and principles, not just of individuals provide the sufficiency for compassion in caring for patients in DI.

8.3 The principles underpinning compassion in DI

The tiers in the conceptual model of compassion constructed in this study consist of superficial appearances described in Chapter 5, and a deeper layer containing imperceptible individual qualities, skills and attributes which prompt these appearances. Had the model consisted of only two levels, the conclusion might have supported notions that compassion resided in, and was the sole responsibility of the radiographer. This research would then have provided

another set of parameters for use in quantitative research aiming to measure and evaluate compassion. However at the final and deepest level are components not attributable to individual radiographers alone. The personal values brought by prospective radiographers to their first day at university are, over the duration of the programme married, for better or worse, with those of the profession they seek to join. This should enable construction of a professional identity which embodies the values publicised and promoted by the NHS in its definition of compassion, a reminder of which is provided here:

"Compassionate care ties closely with respect and dignity in that individual patients, carers and relatives must be treated with sensitivity and kindness. The business of the NHS extends beyond providing clinical care and includes alleviating pain, distress, and making people feel valued and that their concerns are important." (NHS England, 2012).

Like compassion and care, respect and dignity are conjoined in this statement and whilst dictating the morality of care, no useful information regarding its practical application is offered. In this study, dignity was associated in the data with feelings of vulnerability; patients suffered a lack of dignity when undressed and inadequately gowned, or when asked to perform tasks in public when they would have preferred privacy. Respect was exhibited when these feelings were both acknowledged and acted upon, rather than being dismissed or disregarded. In this study, more closely associated with respect was sensitivity, seen from the data as a sympathetic understanding with kindly feelings towards a suffering other. Understanding has already been shown to include appropriate responses from the radiographer to what they have been told by the patient. Interpretation of non-verbal cues are helpful, but the key point lies in the difference for patients between being listened to, and being heard. The former may merely be behavioural cues signalling an appearance of listening, whereas being heard is when actions are taken appropriate to what the patient has said. When hearing, understanding and action interact, compassion is ignited, and feelings of dignity are engendered in the patient as well as others already discussed including confidence, reassurance and comfort. This engagement was described by patients as "a good connection" and by students as "rapport" and the level of

detail provided here is also beginning to appear in the radiography literature (Pollard *et al.*, 2019).

Of greater concern however, are hidden values of the NHS. Patients took exception to the reference to business in the NHS definition of compassion and could offer no information regarding what "feeling valued" meant or how it felt; like compassion, they doubted whether it was necessary in every case. The hidden values revealed in this study are of a marketised health service where efficiency and throughput permeate health service cultures and are prioritised over compassion and care, confirmed elsewhere (e.g. Haslam, 2015); an example of this is the LEAN approach introduced in 2007. Based on a model developed in the business and manufacturing sector (Westwood, Moore and Cooke, 2007), it was intended to improve patient outcomes whilst utilising existing resources and reducing or eliminating waste. Although Martin and colleagues found evidence for the effectiveness of LEAN in a department of radiology (Martin, Hogg and Mackay, 2013), evidence from a later systematic review suggests that this model simply isn't working for patients, staff and even for process outcomes (Moraros, Lemstra and Nwankwo, 2016). A conflict has therefore been identified between these hidden values of business and productivity and those promulgated in the NHS definition of compassion. It was not possible to isolate the source of these hidden values from the data and the ways in which they permeate healthcare culture is also unclear. Clues can be detected in a language which utilises such terms as 'providing' or 'delivering' rather than giving patient care, and where "the business of the NHS..." exhorts radiographers and healthcare workers to "make people feel valued". Compassion and care are yoked in the definition and this entanglement of care with discussed in the literature review (2.6.1). compassion was disentanglement has been made possible by the insights gained into compassion as expressions of caring about, in contrast with a more procedural caring for, patients. Robert Francis's recommendation with regard to compassion in patient care was not, as erroneously interpreted in some quarters, a call for more individual compassion, but for a refocussing of priorities in patient care. Investigations such as Hayre et als into patient-centred care concluded by suggesting that radiographers' attitudes might be explored further (2016), however my findings suggest that contrary to their conjecture that radiographers

are straying from patient-centred care, it is the wider management and ideological culture which is failing to support it.

This study's findings suggest that radiographers are attempting to communicate their distress at feeling pushed to their limits and that they cannot cope with any further demand. One example was seen in the hurrying culture (Challen, Laanelaid and Kukkes, 2017) and confirmed in this study. That an air of rush and exasperation sometimes exists even when at times workload pressures are not intense is proposed as a non-verbal cry for attention to this distress. In the 1970s Freudenberger observed behavioural signs of burnout which included frustration and irritation which exhausted staff members at a medical clinic could not conceal (Freudenberger, 1974). He further noted changes to the thinking patterns of burnt out staff which became negative and cynical, with "bad-mouthing" a feature (op cit, p161). Shocking at first to students new to placement, the dark humour used by radiographers, often at the expense of their patients reported in this and other studies has been proposed as a means of distancing radiographers from patients and their suffering when difficult emotions such as sorrow are too much to bear (Strudwick, 2012b). However the joking and derogatory comments ("badmouthing") about patients perceived by students as unkind, judgmental and unprofessional, especially in cases of less distressing scenarios such as imaging patients with obesity have been seen in previous studies (Phillips and Clarke, 2012; Thanh Le, Robinson and Lewis, 2015; Woods, Miller and Sloane, 2016). Not considered before now is the possibility that dark humour and apparent judgmentalism are strategies used by radiographers to cope with feelings not only of sorrow, but also of frustration or lack of confidence faced with the technical challenges inherent in imaging this particular patient group which in turn impact on the limited time available. Dark humour and derogatory comments did at times seem to be linked with radiographers' perceptions around deserving and judgmentalism more broadly, with supposed lifestyle choices other than obesity including alcoholic liver disease, heart disease, lung cancer in smokers and diabetic ulcers. This would bear out Nussbaum's suggestion that when perceived as having brought their situation on themselves, the compassion of one human being for another is inhibited (Nussbaum, 2014). Non-judgmentalism is not explicit in the SoR's Code of Conduct but was one component in Taylor and colleagues' concept analysis of compassion in therapeutic radiography (Taylor et

al., 2017). More overtly valued in the counselling professions (Rogers, 2004; Gibson, 2005) Taylor et al's findings suggest that non-judgmentalism as a virtue may be infiltrating healthcare culture. This inevitably places additional demands and pressures on radiographers to be compassionate, ethically virtuous individuals (Beauchamp and Childress, 2001) by demanding that they supress negative or judgmental emotions and feelings towards their patient. An alternative interpretation of the judgmentalism seen in this study however, is that it reflects not an uncaring or unkind radiographer, but one dismayed and overwhelmed by the uncontrollable demand for their time, physical and emotional energy, and with no help given to manage their caseload. Freudenberger suggested that it was the job of employers to manage caseloads and limit the number of hours worked in order to prevent burnout. He further argued that there should be adequate staff numbers for the work required and that strategies such as mindfulness were counterproductive, causing further "mental dropping" (Freudenberger, 1974, p164). In this study it was a lack of humour, or levity between radiographer and patient that appeared to be more of an issue than inappropriate use, suggesting that radiographers' professionalism leads them to err on the side of caution when interacting with their patients, keeping it as suggested, backstage away from patients. Dark humour is not a phenomenon unique to radiographers and the question which perhaps should be explored more deeply is not whether it is acceptable but why it is needed (Piemonte, 2015).

Radiographers do make their own efforts to proactively support themselves and their colleagues. An example seen in this study was in a change of attitude to the prevailing culture of a lack of time for compassion: ("I get sick of the excuse of they haven't got time or they're too busy ... it's not the patient's problem and if you haven't got time, make the time"). Also beginning to be rejected is the negative stereotyping of self-help strategies such as mindfulness as "hippy". The examples provided in this research of radiographers' efforts to cope with the cultural clashes between their personal and professional values and those of the organisation act as testimony to one of the key proposals in the outcome of this study. It is that the solution to the recommendation in the Francis Report of promoting a culture of kindness and compassion lies not in the hands of individual radiographers but in the organisational and wider ideological doctrines driving healthcare policy and practice.

The proposed principles underpinning compassion discussed in this section concern the values of both individuals and the organisation and the impact on patients, radiographers and students when hidden values which are at odds with public ones are revealed. Some of the ways this impact can be seen is in the humanitarian aspects of caring for patients as well for radiographers attempting to care for themselves Kindness to self and others is a key component in compassionate and professional practice, both for individuals and for organisational and departmental cultures.

8.4 Reflections on the methods used in this study

This section explores some of the elements of the research methods which impacted on the work carried out in this thesis and the possible bearing these may have had on its outcome. In terms of defining them as a strength or limitation some are less clear-cut than others. Although bias is not a term which applies in qualitative research, taking a reflexive approach helps both writer and reader to recognise factors which may have influenced both assembly and analysis of the data.

With regard to the literature review, one clear limitation was the lack of research in radiography into compassion *per se*. Relying on the nursing and wider healthcare literatures was useful in investigating the field and identifying topics for further exploration, however my understanding of the topic was limited in the ways described in sections 2.2 and 2.3. The differences between nursing and radiography highlighted in the literature and further clarified in this research provide evidence that research into compassion in radiography is justified.

Deception of my participants was an ethical concern raised in Chapter 3. One of my key queries was whether compassion had found its way into patient and practitioner discourse as readily as it did into policy and protocol following publication of the Francis Report. Consequently, no patient or student participant was informed that compassion was the focus of my research until interviews or focus groups were under way and participants had had ample opportunity to use the term if they felt so inclined. Concerns about a potential negative impact on participants of having key information withheld were unfounded as I am confident

that rather than feeling upset, participants appeared interested, but unconcerned when I revealed the main topic of my research.

The role of emotions in memory and recall was an interesting aspect of the methodology in this study. Data derived from feelings differ qualitatively to those more measurable from other observed phenomena, with 'rich' being the term often seen in textbooks and methods sections of qualitative papers. However, the ethics committee considering my research proposal were concerned with accuracy of recall and veracity and indeed, from participants' perspectives, the stories they told me were, to them, a true account of events. However lles makes this salient point:

"...the experiences described by relatives [or patients] are just that, recollections of what they experienced, sequenced together into a coherent narrative. They aren't a faithful objective description of what happened, they are inevitably snippets of events, emotions, and understandings, all seen through a particular lens. When repeated over time these stories become firm in people's minds, and invitations to add or amend recollections are seen as hostile. This is true of all the stories we all tell, about ourselves, our holidays, family, work, and life in general." (Iles, 2013).

In my response to the ethics committee's concerns I cited psychological research into such effects as primacy and recency (Gross, 1987, p202) as well as other theories of memory seen in section 3.4. If accuracy of recall were a strict criterion however, my study would have been seriously flawed; some patients could not even remember the gender of their radiographer, let alone the name, although they did in the main remember that the radiographer had introduced themselves:

"I can't, to be honest, I can't remember on my one [the radiographer] the gender to be honest, but I just remember, to be honest, just going in, having it X-rayed and then just coming straight back out." P23

"...so I suppose that initial meet and greet, 'hello, I'm your...' I'm pretty sure she did that anyway, I would have noticed if she hadn't." P10

Recruiting ex-patient participants using a range of verbal and electronic methods of communication enabled me to reach out to a range of communities. These included patient groups linked with the university, residents in my locality, sporting

and other interest groups and groups of which I was a member on Facebook. Although this entailed a good deal of travelling, it widened slightly the geographical area from which I drew participants and their range of ages, genders and imaging experiences. I did not consider social factors such as gender and ethnicity relevant to this study as I regarded each participant simply as a human being with a story to tell, but felt that it would be useful for these stories to come from a range of perspectives. Based on my observations only, ex-patients ranged in age from their 20s to 70s; 15 were male and 19 female. All appeared to be white Europeans and there was no representation of those in the over 80 age groups, As these form an increasing proportion of the population this could be considered as a significant limitation.

There are, therefore, likely limitations to the claims which can be made in terms of cultural, gender and generational differences which might impact on their attitudes and beliefs around compassion; for example, expressions of emotional and feeling components. Another example relates to the attitudes of radiographers towards patients' perceived lifestyle choices leading to ill-health, discussed on page 236. There, the apparent judgmentalism of radiographers with which they treated patients with obesity observed by students was considered in the context of increased technical difficulties and workload pressures leading to frustration and impatience. However, by omitting demographic information from data assembly, the opportunity to explore other ways patients are treated will have been missed. For example, managing patient dignity during imaging; it is acceptable practice for a male patient to undergo chest imaging without the need to change into a gown which covers their torso, not so for female patients. This has an impact on the time taken; a commodity well established as in short supply and highly relevant to compassion in this study. Likewise, the limitations to movement and co-operation experienced by elderly patients (however willing) compared with younger ones impact in similar ways on the time and technical demands placed on radiographers. The challenges of communicating with patients for whom English is not their first language is a further example of a cultural demographic not explored which would impact on a compassionate encounter.

Although my recruitment strategy was aimed at a range of participants, there were limitations; as a self-funding student I was not at liberty to travel further than my neighbouring county to meet interviewees and had only a small budget from which to offer them expenses. The research was conducted in the south-west of England which houses a predominantly white, middle class cohort of participants, although as I argued previously, emotions and feelings transcend cultural and ethnic boundaries as long as the environment in which their expression is deemed acceptable is conducive; the supportive and non-judgmental approach taken in this research was intended to permit this.

The choice of semi-structured interviews was both a strength and a limitation. In terms of a positive contribution, this type of interview was more pleasant for patients, who visibly relaxed into their stories as they realised they had relative freedom to tell them as they wished. As a relative novice researcher, I was undeniably nervous when conducting the interviews and focus groups and had to train myself to resist the temptation to fill empty silences with prompting questions. I saw how my skills changed over time, and from the transcripts could see that allowing my participants time and space to think through and construct their interpretations produced richer data than if I had been more directive in my questioning. Consequently I felt that the later interviews therefore were richer in depth and detail than earlier ones. I did manage to probe and explore some of the responses given by interviewees but feel on reflection that I could have done more. An example of this is the missed opportunity to discover more about patients' perceptions of speed and quickness seen in section 5.2 and discussed in 8.1. Alluded to in section 3.7, I was aware of such effects as social desirability in which participants tend to present themselves in what they perceive to be a socially acceptable light (Edwards, 1957), particularly in the light of their knowledge of me as an experienced radiographer and university lecturer. I did not want to challenge them, or cause discomfort by asking them to reflect on how their own actions may have affected the interactions they were recounting; apart from creating an uncomfortable atmosphere, this might only have increased the social desirability effect and so I left questions of that nature alone. I made every effort to present myself as interested, empathic and non-judgmental in order to reduce as far as possible this effect, nevertheless I am aware that both patients and students will have presented their version of events consistent with their own

psychological comfort. I wrote in Chapter 3 about my belief that the motivation for participants to take part was in the main altruistic, although in one or two cases it was clear that participants had a point they wanted to make regardless of the line of questioning. I gave them their 'air time' whilst trying to move the conversation on and noted with interest how it generated data not strictly relevant to the research question, but which was nevertheless interesting to think about and it was a good illustration of how withholding information about the principal matter of interest before commencing is more than just a matter of ethics; the researcher also runs the risk of not acquiring the data they need. Although these examples appear like limitations, I felt that these and other apparently less relevant data told me something about participants' general opinions about compassion in health care and I used them in the interpretation of my findings.

The student and recently qualified radiographer participants appeared to be mainly in their 20s and 30s with a female to male ratio of approximately 3:2 taking part; radiography is still a predominantly female profession although less so than when I first entered. Focus group participants appeared more culturally diverse although their backgrounds were not explored, presenting further limitation to my claims. Unlike patients though, students are undergoing socialisation into a specific culture of healthcare and professionalism with which, as discussed previously, personal beliefs and values may not necessarily be aligned. This would complicate any discussion about cultural influences with regard to the focus group data.

The focus group response rate was approximately 10%, hence no claim is made that the students I spoke with are representative of the student radiographer population as a whole. I was asking for their subjective views and experiences which provided a small window into their world and it was interesting to note some of the changes in their attitudes and perceptions as they progressed through their pre-registration education and training. Bryman suggests a range of between eight and fifteen groups although he acknowledges a "good deal" of variation in this (Bryman, 2016). I was limited by students' availability as the time window was narrow; each year group's placement falls at specific points in the calendar. The size of the focus groups was within limits suggested by Bryman and helped me manage to some extent the challenges, such as participants speaking at the

same time. Doubtless, though, the analysis suffers from un-acquired or missed data such as a broader discussion, more frank opinions and disagreements and a deeper examination of the group interaction. Facilitating the focus groups was at times challenging, although fears that group influences and pressures might lead students to avoid debate were unfounded and students cheerfully disagreed as and when they wanted. My experience of running seminars with students and guiding and encouraging discussion helped, although I was mindful that collecting data is not the same as teaching or transmitting information. Practical considerations included difficulties arranging and co-ordinating the sessions around timetabling commitments, although students were at least on campus having recently returned from placement. Other factors conducive to a productive discussion between the students included familiarity with each other and an awareness that they had undergone similar experiences which they found interesting to compare. The tendency to reproduce socially acceptable answers was addressed by reassuring students that whatever they said was confidential, and that I understood personally their perceptions of clinical placement and radiographer-patient interactions.

Some of the limitations of using tweets as a source of data were discussed in section 3.9.1 and I experienced these in this research. They include the fragmentation and decontextualisation that results from a fast-moving online discussion and there were one or two misunderstandings also noticed, for example with regard to a discussion on appearing compassionate. The convenors ensured that the discussion did not stray from the topics that had been set, but these were themselves limited to only three which constrained coding and theme development to a greater extent than the interview and focus group data.

Relying on Twitter for data from radiographers qualified for longer than those in the post-graduate focus group was a pragmatic choice, however one which constrained the opportunity to collect in-depth data and explore further radiographers' thoughts, feelings and opinions. This might then have led to a more inductive analysis and inevitably limits the discussion of such elements as hindsight and understanding which tend in some cases to change and develop with time and experience. Sub-themes such as technical competence and

confidence which featured in the Twitter discussion might have also have been explored in greater depth in face-to-face discussions. The ethics of acquiring data from Twitter discussions was considered and reported in section 3.6.3. I kept in mind that radiographers were discussing principles and practice of patient care within their own community; furthermore although identifiable only by their avatars, these sometimes gave clues to their names and included images of their faces. Some may have felt able to speak more freely than others and all will have been making decisions as to what comments might be perceived as acceptable to their professional colleagues.

The analysis was conducted systematically, with data broken down into small components, sometimes a single word, but more commonly a sentence or phrase. These were then rebuilt into groups, categorised and finally developed into themes. The limitations to the analysis from the exclusion of demographic data include the organisation of codes and possible development of themes based on social factors such as gender, age, social class and ethnicity. The opportunity was missed, therefore to create codes and categories which would have enabled an exploration of similarities and differences in perceptions and attitudes to compassion between males and females for example, or to look for generational differences, if any. I feel as confident as I can that nothing has been missed, although as a lone data analyst I accept that another researcher might make different interpretations. This does not matter; the study is not looking for independent verification either of patients' and students' accounts or of their interpretation. My qualitative supervisor challenged and asked questions of my interpretations in the draft results chapters which provided multiple opportunities to review and reflect on my findings. I developed the ability to notice when I was forcing the data to fit what I wanted to report, rather than interpreting what my participants were saying, which was often more nuanced than first appearances suggested. This usually happened when I strayed from the process of creating and then systematically examining codes one by one. It was easily done as new ideas and concepts came into mind seemingly spontaneously and led to the temptation to group codes into themes before I had examined them adequately and thoroughly enough.

The limitations discussed here inevitably constrain the scope of my conclusions and recommendations. Issues shared by all who care for patients in the NHS such as time, emotional and workload pressures fall within this scope but outside it are conclusions and recommendations specific to the exceptionally mechanistic and technical nature of radiography. Examples of these include expectations of patients as to the nature of their relationship with their radiographer compared with nurses or doctors, conclusions and recommendations regarding technical and procedural elements of imaging and radiography-specific research such as that into what motivates radiographers to enter the profession.

Having reflected on the methods used in this project, I now turn to criteria which appraise its outcome.

8.5 Trustworthiness of this research

I discussed in Chapter 3 the choice of criteria by which my research could be judged; generalisability, reliability and validity being regarded as goals for the critical realist and not the constructivist researcher. It was tempting to use terms which imply universality with regard to the components of compassion proposed in Theme 3 particularly when the data showed that some participants believed that compassion is a phenomenon common to humanity:

"Compassion is not just an isolated thing. Compassion is a universal thing, it starts from ... the time you walk through the door." P25

However, a claim to the generalisability of the findings is one which cannot be made from research conducted from within a constructivist paradigm, likewise, claims of universality of the proposed components of compassion are not made. Some of my findings are proposed as potentially applicable to the nursing and allied health professions and this was discussed at the beginning of this chapter.

Returning to Charmaz's criteria of credibility, originality, resonance and usefulness I can now use them to demonstrate that I have confidence in my data, its analysis and the conclusions drawn.

8.5.1 Credibility

My research has been conducted in a manner consistent with the ontological and epistemological approach described and discussed in Chapters 1 and 3. It was conducted in a systematic and ethically sound manner and is supported with an honest, transparent and reflexive account of the process. The research question was answered as described at the beginning of this chapter and, in discussing the political and ideological issues and discourses shaping NHS policy I have engaged critically with both the literature and my data. I have obtained an indepth acquaintance with the issue of understanding compassion in caring for patients undergoing diagnostic imaging, including conceptual insights into its meaning to patients, radiographers and students. I have also revealed a diverse range of issues surrounding its expression in clinical radiographic practice, only some of which are pertinent to individual radiographers. The data provide sound evidence to substantiate the findings, arguments and conclusions, although I am reminded of Denzin's reference to William James (1912) that:

"Experience can never be reduced to a stream of data or to something called data. Experience is a process. It is messy, open-ended, inconclusive, tangled up in the writer's and reader's imagined interpretations" (Denzin, 2019).

In my attempt to address this, I have demonstrated a systematic analysis supported by notes, memos and a reflective journal. I deem there to be sufficient evidence in the results section for readers to be able to form their own judgment as to whether they concur with the findings.

8.5.2 Originality

The graphical representation of compassion presented in the results chapter has conceptual depth and provides explanatory as well as descriptive components in the themes resulting from the analysis. These offer new ways of understanding compassion in DI. Original findings include:

- Identification of the key components of expressed compassion and other features of a compassionate radiographer-patient interaction;
- Identification of radiographers' skills, qualities and strategies which influence patients' opinions of whether their experiences were perceived as compassionate, as well as their perceptions of radiographers as

autonomous, caring professionals rather than 'button-pushers' or technicians:

 Identification of the proposed principles common to both individuals and the organisation underpinning compassion in DI.

Other findings presented in the results chapters which confirm or challenge existing research form the conclusions to this research, seen in the final chapter. As well as the original contribution to radiography knowledge this study has made, and whilst wary of making overambitious claims, there is a tentative notion that some of the recommendations might transfer to and inform the wider healthcare field. I make this suggestion on the basis that some of the work pressures and demands experienced in radiography are common to other health disciplines and areas of patient care.

8.5.3 Resonance

I explored and discussed my themes with my supervisors, two of whom were radiographers with strong positivist leanings and the third a social scientist in the field of health research. I deemed it a helpful indicator of resonance if they could understand and make sense of my analysis. A small number of my patient interviewees spontaneously offered to read a summary of my results and provide feedback and I took up four of these offers. The feedback included their doubts with regard to teaching compassion with suggestions of methods that might foster empathy; this supported my discussion and recommendations. Other comments reinforced my conclusion that further research is needed into the targeted clinical questions recommended in addition to the radiographer introducing themselves. I referred to the literature in the presentation and discussion of the results noting where my findings mirrored or augmented others, and where differences and contrasts lay. I also noted where my findings contributed to research recommendations. I continually reviewed the literature throughout the project to ensure my work was as abreast of, and resonant with, current knowledge (Nelson, 2016).

8.5.4 Usefulness

As well as aiming to be being deemed of suitable quality for the award of a PhD, the outcome of my research was always intended to offer something of practical

use in day-to-day patient care and to radiography education; indeed, these were fundamental to my motivation in undertaking this project. I wanted to be able to suggest ideas and recommendations for the education of the radiographers of the future as well as areas for further research and these are seen in this chapter. I have already made a contribution to the knowledge base as a result of this research (Bleiker *et al.*, 2016, 2018, 2019) and further publications are planned.

8.5.5 Reflections on the criteria according to the CASP checklist

Table 3 shows the CASP checklist screening questions with reflections on how my research accorded with the criteria according to this appraisal tool.

1. Was there a clear statement of the aims of the research?	1. Yes. The aims and objectives are stated in sections 1.5 and 1.6
2. Is a qualitative methodology appropriate?	2. Yes. The research sought to explore the subjective experiences, feelings, attitudes and opinions of my research participants, to which a qualitative methodology is suited
3. Was the research design appropriate to address the aims of the research?	3. Yes. The research design used methods consistent with a constructivist paradigm aimed at eliciting subjective constructions and meaningmaking of my participants
4. Was the recruitment strategy appropriate to the aims of the research?	4. Yes. Sampling and recruitment are described and discussed in sections 3.4.1 - 3.4.6. The research aimed to explore compassion from a range of perspectives in DI. Interview participants were selected according to whether they had undergone DI but were not currently in the care of the NHS. Focus group participants were selected from students on the MI course at Exeter and an opportunity sample was taken of radiographers taking part in a Twitter discussion
5. Were the data collected in a way that addressed the research issue?	5. Yes. Interviews and focus groups took place in a setting convenient to the participants, where they could sit comfortably and not be overheard. In keeping with an exploratory study, the data were collected using individual semi-structured interviews with ex-patients and focus groups with students and recently qualified radiographers with data from a discussion on Twitter between experienced radiographers. The interview and focus group schedules consisted of open questions aimed at eliciting experiences,

	feelings, opinions and attitudes to a range of issues relevant to compassion in DI. The interviews and focus groups were audio recorded then transcribed in to Word documents. These were accompanied by notes taken during and after which supported and informed my analysis and reflexivity.
6. Has the relationship between researcher and participants been adequately considered?	6. Yes. The discussion includes a critical evaluation of my role and potential influence during the study, particularly with regard to students given my position as past lecturer and tutor. Students chose freely what they were comfortable discussing and were not pressured into saying anything they did not want to
7. Have ethical issues been taken into consideration?	7. Yes. Ethical issues are discussed in section 3.6. The issue of deception did not pose a problem for participants. Distress from recalling upsetting experiences occurred in one participant and I was able to sit with them in silence; that they continued with the interview suggests that they recovered although I do not know if there were any longer term consequences
8. Were the data analysis sufficiently rigorous?	8. Yes. The analysis is described in section 3.9 and Braun & Clarke's checklist can be seen in Table 4. Data supporting the findings are presented in Chapters 5, 6 and 7 with contradictory data discussed in Chapter 8 along with a critical reflection on the methods
9. Is there a clear statement of findings?	Yes. The findings are presented in graphical and written forms and the main findings are presented in the abstract and conclusion. Their trustworthiness is presented in sections 8.5.1 – 8.5.4
10. How valuable is the research?	10. Transferability of the findings to other healthcare professions, in particular in relation to Dewar's research is discussed in Chapter 8. The contribution to the radiography literature is clarified in Chapter 9 where recommendations can also be found for future research.

Table 3: CASP checklist with reflections

8.5.6 Reflections on Braun & Clarke's criteria

Table 4 shows my reflections in relation to Braun & Clarke's checklist for appraising the quality of the thematic analysis undertaken in this study (Braun and Clarke, 2017).

- 1. Is the use of TA justified, even if only very briefly? And, is it consistent with the research questions, and theoretical and conceptual underpinnings of the research? Is there a good 'fit' (conceptual coherence) between the methods of data collection and TA?
- 1. Yes. Justification was discussed in section 3.9. The research aimed to elicit participants' constructions of their experiences in order to conceptualise compassion. The research was not underpinned by a grand theory, however theories such as Dramaturgy informed the analysis
- 2. Do the authors clearly specify which approach to TA they are using?
- 2. Yes. I called this a Constructivist Thematic Analysis consistent with my approach (Braun and Clarke, 2006b; Charmaz, 2014)
- 3. Is there evidence of problematic assumptions about TA? For example, treating TA as one, homogenous, entity, with one set of widely agreed on procedures; assuming grounded theory concepts apply to TA without any discussion or justification (saturation, constant comparative analysis, line-by-line coding); assuming TA is only a data reduction/descriptive/inductive/deductive approach, and thus has to be
- 3. Although I followed the six steps outlined by Braun & Clarke this was to ensure my analysis was systematic rather than treating it as homogenous. Section 3.4.1 details how I avoided applying grounded theory concepts to my analysis and section 3.9 details the partinductive, part-deductive nature of the analysis.

supplemented with other methods or procedures.	
4. Are the theoretical underpinnings of the use of TA clearly specified (e.g. ontological, epistemological assumptions, guiding theoretical framework(s)), even when using TA inductively (inductive TA does not equate to analysis in a theoretical vacuum)?	4. An Idealist ontology and interpretivist epistemology underpin this TA. The research was conducted using a Constructivist methodology according to principles set out by Lincoln & Guba (2013). Dramaturgical theory informed and guided my interpretation and analysis of the data (Goffman, 1959).
5. Do the researchers 'own their perspective', even if only very briefly? This is especially important when the researchers are engaged in feminist/critical research and when representing the 'voices' of marginal and vulnerable groups, and groups to which the researcher does not belong.	5. The reflexive component of this research acknowledged my own values and perspective and how highlighting these informed development and communication of my understanding of compassion in DI.
6. Are the analytic procedures used clearly outlined, even if only very briefly?	6. Yes. Section 3.9 details the stages of the analysis. These included first stage coding in which data were grouped and labelled. Second stage coding involved examining codes for similarities and differences with further

grouping and splitting and reducing to clusters of codes. Classification and abstraction in which higher level meanings were identified and written accounts produced. Finally, themes were produced which led to formation of a concept of compassion.

- 7. Is there evidence of conceptual and procedural confusion? For example, Braun and Clarke (2006) is the claimed approach but different procedures are used such as a codebook/coding frame, multiple independent coders and consensus coding, inter-rater reliability to establish coding reliability, and themes are conceptualised as analytic inputs not outputs and therefore the analysis progresses from theme identification to coding. Is it clear that the authors have read and fully understood Braun & Clarke (2006)?
- 7. No. I was careful to avoid any blurring of my chosen method of conducting TA with those from other approaches and assumptions. Evidence of this can be seen in examples in sections 3.4.1 and 3.5. I did not include those features of the checklist associated with more positivist approaches to TA.I read and have cited Braun & Clarke (2006b) in this thesis.

8. Is it clear what the themes are?
Would the paper benefit from some kind of overview of the analysis: listing of themes, narrative overview, table of themes, thematic map?

The themes are presented using a graphic in Chapter 4 and each has its own dedicated chapter (Chapters 5, 6 and 7).

- 9. Are themes merely domain summaries (summaries of domains or areas of the data, that is, summaries of everything the participants said about a particular topic or in relation to a particular question, with no unifying concept underpinning the claimed 'theme')? Have the data collection questions been used as themes? Are domain summaries appropriate to the purpose of the research? If so, if the authors are using Braun & Clarke (2006) TA, is this divergence in the conceptualisation of themes discussed? Would the paper benefit from further analysis being undertaken and the reporting of fully realised themes? Or would the paper benefit from describing the approach used as one reflecting a different approach to TA (e.g. coding reliability, codebook)?
- 9. The themes explain as well as describe the components of compassion as constructed in this analysis and do not merely summarise data domains. The interview and focus group questions do not constitute the theme labels. The work remains consistent with the approach taken in the first instance; i.e. a constructivist analysis and further analysis is not deemed to confer any further benefits to this thesis.

10. Is a non-thematic contextualising information presented as a theme? (e.g. the first theme is a domain summary providing contextualising information but the remaining themes are fully realised themes) Would the paper benefit from this not being presented as a theme but as contextualising information?

All three main themes encapsulate the components of compassion as found at the levels presented, i.e. surface/superficial components are observable or perceivable, less perceptible components are presented as occurring at deeper levels. None of the themes are

	considered to be contextualising information.
11. In applied research, do the reported themes give rise to actionable outcomes?	The findings lead to recommendations some of which are actionable, for example the recommendation that radiographers annotate the imaging request with additional detail acquired from observing and questioning their patient. For the most part however, the themes meet the aims of fundamental or basic research in which more a general contribution to a body of knowledge is, and has been made.
12. Are there conceptual clashes and evidence of conceptual confusion in the paper? (e.g. claiming a social constructionist approach while also displaying a concern for positivist notions of coding reliability, or claiming a constructionist approach but then treating participants' accounts as a transparent reporting of their experience and behaviour)	Great care has been taken to maintain consistency between the declared approach and the methods by which the research was conducted and data analysed and interpreted. The findings have been reported in a style in keeping with a constructivist rather than positivist approach.
13. Is there evidence of weak or unconvincing analysis? Is <i>(sic)</i> there too many or two few themes, confusion	There are three clear and distinct themes which relate to each other in terms of the depth at which the

between codes and themes, mismatch between data extracts and analytic claims, too few or too many data extracts, overlap between themes? proposed components of compassion lie with regard to their perceptibility. Data extracts are relevant to the claims reported in the findings chapters and with only a few exceptions are limited to one or two data items per claim.

Table 4: Braun & Clarke's checklist with reflections

8.6 Reflections on the research process

The dual nature of reflective practice as a professional activity in radiography and reflexivity as a crucial element in qualitative research have married well in this project. Reflexivity is, however, a cultural phenomenon as well as a professional one: Craib, a writer on post-modern accounts of identity noted that: "the central feature of the self in modern society is its reflexivity" (1998). The purpose of this section then, is to critically reflect on the subjective elements that will have impacted on this research, such as my own pre-conceptions, attitudes and beliefs built over a lifetime of clinical and academic practice and to offer some final thoughts on this PhD project and its impact on my own identity, both personal, and professional radiographer/researcher.

With regard to my persistence in pursuing answers to questions of meaning and understanding in compassion using qualitative means, I am aware of the tensions in a competitive research world where impact and citation rates are highly valued metrics. The controversial editorial decision taken at one esteemed medical journal appears to be a reflection of the low value and priority currently given to qualitative health research (Greenhalgh *et al.*, 2016; Loder *et al.*, 2016). The journal editors claim that their decision was based on a desire to emphasise generalisable and definitive rather than exploratory work designed to appeal to a wide audience and influence clinical practice and policy. This is not supported elsewhere in the field (e.g. BPS, 2018) and illustrates a basic lack of

understanding of qualitative research which is still a relatively novel methodology in radiography research. Whilst outcomes might not be generalisable, they may still be transferrable, and without the need to declare limited levels of confidence in the findings. In this study my motivation was to produce high quality research using a methodology appropriate to the research question whilst remaining mindful of the debates in the wider research and publishing arenas. Adams and Smith (2003) encapsulate my motivation to undertake this research using a qualitative approach when they write:

"If we focus strictly upon the formal setting of radiography care we are confronted with another issue that lends itself to qualitative inquiry: the radiographer—patient relationship and interactions. ... Radiographers are commonly in the unique position of interceding between the patient and potentially threatening health care technology. Qualitative methods can help radiographers to systematically examine both the patient's role in care and decision making and their own professional communication skills." (Adams and Smith, 2003).

As a retired clinical and academic radiographer I was less 'on the inside' than a practising radiographer conducting ethnographic or action research. Nevertheless, my lengthy clinical experience meant that I had insider knowledge of radiographic and academic culture not otherwise available to researchers from other backgrounds. This, together with knowledge from my general and higher education and life experience both helped and hindered my research. The help came from my career in x-ray departments in the North-East, Midlands and South-West of England, and in a range of imaging modalities and I can therefore claim a wide range of radiographic knowledge and experience. Despite this claim however, I know that I would still, if joining a community of radiographers today feel that there were cultural and social norms with which I would need to become familiar; as with any social group it is a mistake to stereotype radiographers. This is despite their superficial shared characteristics such as qualifications, an interest in medical technology (if these findings are to be believed to be true) and a tendency towards belligerence from the constant querying of x-ray requests in order that the radiation dose is justified (DoH, 2017a). The aforementioned help, therefore, is limited to my experience only. The hindrance came from an initial focus on the individual, unknowingly brought in part from my degree studies in Psychology, but also as a citizen of a neo-liberal society with deeply embedded values of individualism, self-sufficiency and a tacit acceptance of a market economy, not realising just how devastating the impact of this could be on a service like the NHS. It could be argued then, that rather than allowing these influences into my thesis, my research has produced a near opposite outcome, namely a rejection of the status quo and a hope that the conclusions reached in this study, rather than recommending more effective training in compassion for individual practitioners, present instead a call to arms for radiographers and health professionals to ignore the overt and less overt cultural emphasis on efficiency and productivity and instead choose for themselves a way of practising, perhaps even a way of being which is more closely aligned to the values which prompted a choice of a career in radiography. It is possible to be interested in both the technical and the personal, and it is possible to give compassionate care to patients undergoing diagnostic imaging, although not perhaps in ways more stereotypically associated with our fellow professionals in nursing.

My motivation to undertake this research was presented in section 1.11 of this thesis and it remained high throughout, despite my fears that by the time of completion, the Francis Report would be under a pile of similar reports gathering dust. Other motivational dampeners included feelings at times of becoming bogged down in the research and it was amusing and reassuring to see this represented metaphorically in the literature on qualitative research methodology; Phillips commenting on constructivist research as "quicksand" (Phillips, 1995, p6) and Finlay of negotiating the swamp, with its "muddy ambiguity" (Finlay, 2002, p209),

My role as a researcher has helped me find an academic voice, although I maintain a strong preference for the written rather than spoken word. It has changed how I view my world and what matters to me; in that respect it is not only the project that is constructivist. I always considered myself open-minded, but now add pluralist and 'a bit political' to my definition of me. I've learned to notice when strongly-held views are being presented as facts and realise that winning the argument is far less important than presenting a cogent case and understanding another's point of view. Taking this approach has also established my own position with regard to the truth. When you are surrounded by positivists,

the sheer weight of their belief that there is a firm and fixed reality 'out there' with which there is an objective correspondence can be overwhelming, but there has been a settling in my mind of the belief in an interpretivist philosophy. This first came to my attention when I began teaching the foundations of patient care to my students, even though it drove them to distraction, such was their desire for cold, hard facts. I have become much more questioning and less accepting of the idea of facts, which I now see more clearly as merely strongly-held beliefs, and I feel that I have become better able to manage my own emotions as well as the largest writing project I have ever attempted. Strudwick felt "uncomfortable" at some of the findings from her doctoral research which paint a less than ideal picture of our profession. I can relate to this; they dent the pride and self-esteem associated with involvement in a respected community of practitioners. Compassion however, permits comfortable feelings of discomfort through understanding and a slowing of responses around judgment and deserving, but it also involves a refusal to accept the status quo, hence the presentation in this thesis of findings that may be perceived by some as controversial. I do, however feel slightly nervous about releasing these from my head, onto these pages and beyond – "sticking my head above the parapet" in Strudwick's words (Strudwick, 2011).

8.7 Chapter summary

In this chapter the findings from my research have been discussed with reference to what was already known about compassion in DI and the wider healthcare literature. It is now understood to a greater depth than previously, and the analysis has resulted in development of a three-tiered model. The model makes explicit the appearances of compassion, not all of which are behaviours or acts as indicated by dictionary definitions, and specifies some of the qualities, skills and abilities which drive and motivate individual compassionate acts and behaviours. These do not, however exist in a vacuum and are themselves underpinned by societal and ideological principles which govern, and sometimes conflict with, humane and kind patient care. This research, whilst limited in size, has captured the complexity of compassion in diagnostic imaging. It has shown that compassion is not the sole remit of individual radiographers and

demonstrated that organisational efforts directed at training compassion are likely to be less worthwhile than promoting compassionate cultures. The hidden values of business and marketisation behind those of care and compassion are gradually being revealed and that humanitarian values of kindness and caring-about are what really matter to patients.

Chapter 9: Conclusions and recommendations

9.1 Introduction

The objectives of this project were to explore the experiences, perceptions, feelings and opinions of patients, student- and qualified radiographers. Achieving these objectives led to realising the main aim, which was to construct a conceptualisation of compassion in diagnostic radiography and to address some of the issues raised in the literature review. Since publication of the Francis Report recommendations with regard to the "increased focus on a culture of compassion and caring in ... recruitment, training and education" a body of literature including policy responses as well as healthcare research has accumulated with an emphasis on increasing compassion in individuals. Embedded into the compassion research literature are assumptions of a shared understanding of its meaning based mainly on definitions of feelings aroused at the suffering of another and a desire to help. Ramsay (2014), however, was one of only a few who raised the question of its meaning in practice, while Sinclair and colleagues called for a deeper understanding of the key behaviours and attitudes associated with compassion (2016). Discussion and position papers questioned broader ethical and ideological issues around the ubiquity of compassion in healthcare as well as quantifying, benchmarking and teaching it. In radiography there is very little empirical work seeking to understand compassion, save for one concept analysis in therapeutic radiography (Taylor, 2017) and a discussion paper inviting thoughts as to suitable pedagogy (Hendry, 2019). The research question asked:

What are the principal components in a conceptualisation of compassion and how is compassionate care experienced and practiced in the context of diagnostic imaging?

This three-tiered conceptualisation provides depth to standard definitions, showing that compassion consists of noticeable and discernible surface components and deeper, less perceptible ones. The study's findings provide practical examples of behaviours exhibited by radiographers towards patients, whose perceptions and expectations are complex. This complexity provokes the challenge to giving care which is perceived as patient-centred and

compassionate, but the findings also helpfully identify deeper, less evident qualities, attributes and skills which drive and motivate radiographers' compassionate behaviours. It also isolates technical and environmental factors unique to radiography which impact on perceptions of compassion in DI. In the third tier of the concept reside personal, organisational and ideological values which underpin those in the upper two. In addition to achieving the principal aim of conceptualising compassion in DI, the findings also give cause to revisit ideas around depersonalising behaviours and factors which can inhibit compassion such as apathy and lack of proactivity, which in radiographers have been proposed as precursors to stress and burnout. They also illustrate the impracticality of attempts to quantify, benchmark or teach compassion. The purpose of this final chapter is to present a conceptual definition of compassion in DI and to conclude the research with recommendations in four areas: radiographic practice; education and training; research and policy. The chapter closes with some final thoughts, giving the last word to the person at the centre of their care, the patient.

9.2 Key findings which contribute to a conceptualisation of compassion bespoke to diagnostic imaging

Compassion in diagnostic imaging resides in a technically competent and kindly undertaken imaging examination in which qualities and attributes of the radiographer which are less perceptible to outside observers combine with technical, communication and interpersonal skills to engender feelings in patients of dignity, comfort, confidence and reassurance. The qualities and attributes of radiographers associated with compassion are those of understanding, sensitivity and proactivity. The skills required for these qualities to be displayed are, in addition to technical competence, observation of non-verbal cues from patients of their physical and emotional suffering. A meaningful dialogue between radiographer and patient involves more than simple introductions with the radiographer giving explanations and asking personalised questions of the patient. Responses based on the answers are perceived as expressions of compassion and patients are emotionally touched when this dialogue takes place

in an atmosphere of calm rather than of rush or hurry. Compassion lies latent in the radiographic encounter, not in the individual radiographer and is manifest when a radiographer perceives physical or emotional suffering in their patient and responds with acts of kindness. The radiographer disregards the consequence that this takes more time than is needed for the task of image acquisition and the pressures of time and workload imposed by the culture of department, organisation or ideology. Not necessarily required in every encounter are expressions of compassion, empathy or morally virtuous feelings in the radiographer of caring about or of valuing the patient. Nor need radiographers' personal values align exactly with their professional ones. Required though, are appearances of a proficient and confident radiographer who accepts their patient for who they are in that moment. Any of these components of compassion will be prohibited by a lack of support from the employer to help manage the emotional and physical effort associated with the role of caring with compassion for patients, or the pressures of time and throughput.

9.3 Radiographic practice

One of the principal conclusions from this research is that, despite organisational and cultural dogma, radiographers are not singularly responsible for caring for their patients with compassion. What they can do as individuals, however is to allow their practice to reflect a rejection of the subtle cultural emphases on throughput and efficiency at the expense of the values that underpinned their choice of radiography as a profession. Furthermore, any assumption that compassion should be overt in every radiographer-patient interaction is flawed; expressions of compassion are neither wanted nor needed in every case. Nor must radiographers continually feel the sometimes painful emotions of sorrow and empathic distress at the suffering of their patients in order to practice with compassion. Empathy was closely associated in my participants' minds with compassion, but there was also acknowledgment of the cost to a radiographer in terms of emotional effort and fatigue.

Contrary to popular opinion, radiographers do not need to authentically care about every patient they encounter, although crucially, this should not be

misinterpreted as meaning that they are free to be uncaring; only that maintaining an emotional distance does no harm to patients, who do not expect such an emotionally close relationship with their radiographer compared with other healthcare professionals such as nurses, physiotherapists and doctors. Patients do, however, appreciate any impressions gained that they are not one of a number on a production line; that the radiographer has time for them and cares about them. For some patients, the swift in-and-out that characterises digital imaging today is what they need and expect; anything more is inappropriate and may even offend. For others, the examination must take longer than that required for the technical aspects of acquiring the image to allow for physical or psychological needs to be met. These needs may or may not be deliberately communicated to radiographers who then demonstrate consideration and understanding if they try and accommodate them, however busy the department; if they do, compassion is perceived by the patient. Radiographers who perceive and respond to a need for compassion ignore for a time the pressures and demands for ever-faster throughput. They take a proactive approach in advocating for their patients' safety, welfare and wellbeing regardless of what other radiographers waiting impatiently to image the next patient might think, what a densely packed waiting room or lengthy appointments list might imply. Patients' emotional or psychological needs can be hard to spot, particularly when they make efforts to hide or conceal them from view, masking them with compliance and co-operation. If the radiographer ascertains from their observation of a patient's behavioural and non-verbal cues signs of suffering or distress, compassion is an appropriate and welcome response. This augments research suggesting that appearances of professionalism confer emotional benefits to patients such as trust and confidence (Strudwick, 2014) and consequently compassion is proposed as a component of professionalism.

My study's findings confirm those from previous research which characterise radiography as distinct from nursing and other health professions with respect to a patient-practitioner relationship which is time-brief, task- and image-focussed. Patients' perceptions of a chilly, gloomy and mechanistic radiographic environment have not hitherto been seen in the literature and augment previous conclusions. Also not seen before are patients' perceptions of radiographers who interact minimally with patients as technicians rather than professional

practitioners. My research suggests that radiographers can address this issue of professionalism and place the patient at the centre of their care by, in addition to introducing themselves, including patient-specific clinical questions and offering information to the patient as to what they can see on the images. This may require appropriate further training and evidence of competence in a range of skills including image interpretation, clinical observation and communicating upsetting news. Benefits, however, are four-fold:

- Patients enjoy feelings of being heard, cared about and non-judgmentally accepted.
- Radiographers profit from achieving an understanding of the patient's unique circumstances, needs and wishes; this facilitates and expedites the imaging examination to the benefit of both radiographer and patient.
- Students acquire skills in imaging and caring for patients by observing and internalising competent, compassionate and professional role models; positive components of a hidden curriculum of cultural departmental and professional norms.
- Reporting radiographers and radiologists benefit from additional information based on a radiographer's clinical observations. These have been empirically shown to aid diagnosis and are regarded as important by reporting radiologists (Maizlin and Somers, 2018).

Studies which conclude that radiographers need or should be more patient-centred are disputed, with my findings indicating that radiographers are unsupported specifically to have enough time to attend to both the patient and the task. They further suffer a lack of recognition of the sometimes laborious emotional effort involved in caring for patients. Apparently unkind or dehumanising behaviours such as the medical and radiographic shorthand used by radiographers are reinterpreted as time-saving or stress-relieving strategies which are acted out away from patients and cause no harm, unless they are brought into the patient-radiographer interaction; in my study this was a rare occurrence. I further conclude that diagnostic radiographers are signalling their distress and emotional fatigue at the manufacturing-production ideology now driving the NHS which is compromising their capacity to care. They do this by

cultivating a hurrying culture and by leaked expressions of frustration including impatience and judgmentalism in their efforts to rationalise their impossible workloads. Despite this, there is evidence of proactivity, conscientiousness, sensitivity and caring in radiographers, and grounds, therefore, for optimism.

The implications for radiographers are five-fold and I recommend that they:

- Listen with a questioning mind and critical resilience to policy and protocol statements exhorting them to show compassion to every patient. Use the time saved by technological improvements such as digitisation to spend with patients rather than to speed throughput;
- Ask questions of the patient in addition to explaining the procedure before commencing positioning for imaging. This will reassure patients and foster impressions in them of professionalism. It will further establish how best to conduct the examination and secure the patient's co-operation;
- Observe their patient, looking for signs of pain or discomfort and adapt their radiographic and interpersonal techniques if needed;
- Annotate x-ray request forms with additional clinical information based on their observations of the patient and patients' answers to their questions;
- Resist external pressures to speed patients through if more time is needed
 to give what care the patient needs in that moment, taking the attitude that
 the time saved thanks to technology can be spent on the patient, rather
 than increase throughput;

There is one recommendation for radiographic practice which has implications for x-ray room design and is not therefore a responsibility of individual radiographers but of radiographic departments. It is as follows:

X-ray tubes to be fitted with a switch so that the room lights can be turned
on by the radiographer who walks past the tube on their way to calling the
patient from the waiting room. They could then welcome the patient into
a brighter, lighter and safer x-ray room and then turn off the main lights
when positioning and centring prior to exposure.

9.4 Research

As with any research, raised questions are of the same importance as answered ones and the next section offers recommendations for future research that would strengthen the evidence base. This qualitative project has produced a meaningful conceptualisation of compassion in the absence of scales or measures. Those reading it will be able to recognise compassion in a radiographic encounter without the need to refer to checklists or conduct tick-box exercises. The findings that run counter to the interpretations of the recommendations made in policy suggest that using a qualitative methodology might inform implication of the Francis Report recommendations as effectively as quantitative ones.

The implications for research are seven-fold and I recommend:

- Research into which clinical questions would most effectively enable the radiographer to tailor the examination to the patient's needs and abilities, inspire calm and confidence and promote perceptions of radiographers as professional practitioners rather than technicians;
- Further qualitative exploration of other concepts associated with compassion in this study, principally empathy and care;
- Conceptualisation of qualities such as consideration, hindsight and proactivity and how they relate to compassionate care;
- Research into whether diagnostic radiographers are beginning to experience compassion fatigue and exploration of the contributory factors in DI;
- Further work exploring how radiographers can be supported to give compassionate care within existing systems and cultures;
- Research into the factors which motivate diagnostic radiographers to enter the profession in order to understand better how radiographers manage the relationship between the technical and interpersonal characteristics of radiography when giving compassionate care to patients.

 Research into how radiographers might be supported to share with patients their knowledge of what they see on their images.

9.5 Education and training

Compassion may be an innate individual trait or characteristic; in parts of the literature, particularly policy and protocol there is that assumption but this was neither confirmed nor refuted in this study. Regardless, the failure to distinguish between person and behaviour led some patients, students and radiographers in this study to erroneously attribute compassion or its lack, to the person. Compassion training may therefore be a futile endeavour, particularly if long-term effects are the aim, since it can only modify behaviours which appear compassionate. These do not address underlying personality or other more enduring characteristics and values of the individual, nor the emotional and feeling components. However, if regarded as a tick-box exercise, training and competencies may be engineered in order to produce appearances of successful compassion training. The augmented reality pedagogies seen in the literature review aimed at training compassionate behaviours are a poor substitute for person-to-person interactions (Bleakley, 2014) and Willis promotes the unique value of placement learning which provides context and the richness of the patient care experience on which students can reflect, in contrast to the theoretical pedagogy of classroom simulation: "Learning to care in real-life settings lies at the heart of patient-centred education" (Willis, 2013). Teaching radiographic knowledge such as anatomy and physiology, technique and radiation physics produce a radiographer who can say what they are, defined in terms of the role they play. However, for a radiographer to say who they are requires a different approach as it is within a radiographer's identity where can be found the values which, according to the findings of this study are the foundations of compassion in DI. Radiographic identity is promoted in terms of ideals in the formal curriculum, but is sculpted in the hidden curriculum of placement through processes of socialisation and role modelling (Hafferty and Franks, 1994). The hidden value system which impacts on the development of a radiographer's identity might be beneficially brought out into the open in order

that students can explore their personal values, comparing and contrasting them with those of the profession and the organisation (Fotaki, 2015). Proactivity may also be explored and its healthy development fostered. Rather than delivering a lecture however, reflective discussion sessions guided by a facilitator have been proposed as a pedagogical tool in promoting and fostering compassion by guiding students to think about their learning experiences with a particular focus on the patient-practitioner relationship (Hendry, 2019). The findings from this study support this proposal, and further suggest reflection as a mediator of compassion by virtue of considering emotions and feelings as well as the events that precipitated them. Some models of reflection incorporate emotional awareness (see for example Gibbs, 1988). Although accessing and naming emotions associated with empathy might raise awareness of compassion, a key conclusion from this research is that accessing feelings of frustration may be a more effective means of inspiring acts of compassion, given that proactivity and a resistance to a status quo that does not place compassion to the fore has been established as one of its essential components.

The implications for education and training are seven-fold and I recommend:

- Teaching skills in clinical history-taking for both undergraduate and postgraduate radiographers, including any evidence-based questions derived from the recommendations for research;
- Classroom teaching of clinical observation and interpretation of behavioural and non-verbal cues, particularly those signalling pain, distress and anxiety;
- Raising awareness of how patients see compassion and how compassionate care relates to professionalism;
- Undergraduate and post-graduate training in communicating with patients with particular reference to giving upsetting or bad news;
- The incorporation of compassion and its correlates into the formal curriculum in reflective discussion sessions with explicit inclusion of the specific negative as well as positive feelings and emotions identified in this

research. Expert support to help students manage previously unidentified emotions may need to be a feature of, or complementary to, these sessions;

- Radiographers are expected to provide pastoral support for newly qualified radiographers and students with preceptorship regarded as part of their professional role. Specialist training in emotion management with integral clinical supervision is recommended;
- Incorporation of debates in medical humanities and ethics into the radiography curriculum in such a way as to enable students to explore and debate the values of the NHS as well as their own.

9.6 Professional and organisational policy

Teaching and learning compassion are only one part of the solution. The Francis Report recommendation referred to "an increased focus on a culture of compassion and caring in ... recruitment, education and training" Cultures, by definition are not taught and this has implications and recommendations for policy. Policy and professional documents are the charters for compassionate care. This research offers specific detail with regard to how these might appear if compassion were incorporated in more than name only. The qualities, skills, abilities identified in this study as components of compassion present a picture of radiographers as more than the sum of their competencies and a suggested term to replace competence in the SoR's Code of Professional Conduct as well as the wider radiographic discourse is expertise. Yielder proposes expertise as:

"...a synthesis of a particular knowledge base, the cognitive processes, personality and internal processes of the practitioner. It manifests through, and builds on, interpersonal relationships with patients and other professionals, and is expressed through the actual doing of professional practice" (Yielder, 2004, p60).

Her model of the integrated functions of professional expertise in radiography has been ready and waiting for some time to provide the necessary framework upon which my findings can be built.

The emphasis on the patient in policy and professional codes of conduct largely ignores the needs of radiographers who nevertheless are required to recognise if their performance or judgment is being affected by their physical, emotional or psychological health (SoR, 2013, section 3.3). This research offers suggestions as to what might impact these; principally workload pressures, emotional fatigue and an ideological insistence on productivity over care. Important in cultivating compassion is an organisational ethos of kindness and support so that radiographers can do their job, now definitively identified as acquisition of a radiographic image, but with compassion. Support is manifest when radiographers are allowed to feel that time is available, should it be needed, for them to express compassion towards a patient and to join group debriefs after traumatic incidents either at the time or soon after. Crawford coins the term "bidirectional compassion" to encompass processes and resources which promote compassion towards staff as well as patients (Crawford et al., 2014). Positive attitudes towards self-help strategies such as mindfulness and a supportive culture of sharing feelings would also allow compassion to permeate departmental cultures in a working environment that does not bureaucratise and benchmark compassion in the individual (Gabriel, 2015).

Language and culture are intertwined and have been discussed in terms of the ways radiographers sometimes refer to patients and each other using a non-human lexicon: "the wrist"; "the trolley"; "band 5". An alternative conclusion to suggestions of this as dehumanising is proposed; that these are shorthand measures which foster efficiency and unite radiographers in their community of practice. However the language of business is also seen in policy and protocol, even in the NHS definition of compassion, creating a discourse that includes 'delivering' compassionate care and patient care skills as 'hard' or 'soft'. Healthcare professionals undertaking doctoral research into patient care have previously remarked on the 'politicisation' of the NHS (e.g. Dewar, 2011; Harvey-Lloyd, 2018) and the findings from this study confirm this. Furthermore there is a suggestion of deeper concerns amongst patients that the NHS and those working

in it are victims of a neo-liberalist political philosophy in which metrics-based efficiencies are seen as the way of managing the demand for healthcare. Even more troubling is the finding in this study that some patients are also absorbing, accommodating and normalising a dehumanising business and manufacturing culture of caring when they value speed and efficiency over care and communication and expect, or are unsurprised by, a production line style of care. Kerasidou calls for a re-evaluation not only of the healthcare systems in which practitioners operate but also the social and political environment in which they are cultivated (Kerasidou, 2019); perhaps it is time to reconsider whether the NHS can be run on the same lines as a manufacturing plant. If such a consideration were to be made, then a suggestion made by Valerie Iles in a critique of the Francis Report might be a good place to start. Iles recommends inviting those most closely involved to help with the design of a system "that does not lead to the helplessness they appear to have felt when faced with complex intractable problems, that does not require them to focus on other priorities at the expense of these, and does not blame individuals when it is the system itself that is at fault." (Iles, 2013). Her recommendation is a product of a conclusion which challenged not just the findings and recommendations of the Francis Report, but the reflection of reality portrayed within it. Iles argued that the report fails to appreciate the complexity of the health system so heavily criticised and points out the shift from relational to transactional models of care. Moreover, patients were arguably at the centre of the report as the principal, and perhaps in some interpretations, the only beneficiaries of the recommendations; staff were perhaps meant to benefit by becoming 'more' compassionate, and by implication happier perhaps.

This research provides policy-makers with the meaning of compassion in DI and defines the areas where an increase in its focus can be directed. The implications for policy are seven-fold and I recommend:

 Changing the language in the SoR's code of Professional Conduct by replacing the term Competency with Expertise. This subtle linguistic cue would affect public perceptions of radiographers as experts in a profession whose values include compassion as well as image production rather than as technicians performing mechanical tasks;

- Development of guidance and parameters as to what and how much information with regard to their images could be shared with patients by radiographers;
- Changes to policy documentation which would filter into healthcare discourse include substituting 'giving' for 'delivering' patient care, and 'technical for 'hard', and 'interpersonal' for 'soft' skills;
- The NHS definition of compassion would benefit from some modification in the light of the findings of this research. Whilst sensitivity and kindness are rightfully highlighted, it is recommended that sensitivity instead of respect is associated with dignity. Inclusion of the notion of non-deserving of suffering would enable an understanding of why non-judgmental acceptance is key to making patients feel valued. The term business should be removed and replaced with purpose;
- Cultivation of a working environment in which reminding radiographers of their duties and moral responsibilities is accompanied by training and specialist professional support in helping them identify and manage their emotions in order that they may flourish and engage emotionally with their patients;
- Allocation of time and resources to allow flexibility for compassion to be incorporated into patient care;
- A recognition that although compassion may have quantifiable benefits in terms of patients' physical and psychological safety, these may be difficult to evidence. Some of the examples provided in this research may be of use in constructing parameters which, through an understanding of the components of compassion, may help in attributing causality to factors other than individual practitioners when reporting incidents and nearmisses.

These recommendations are wide-ranging and act as a reminder that compassion is not an individual responsibility, nor does it reside solely in radiographers or indeed any other healthcare practitioners. There are qualities and skills which, when understood, cultivated and exercised create impressions

in patients of being cared for with compassion. It is, however also a cultural and organisational phenomenon which can be fostered or extinguished according to whether the resources and conditions for its expression are available.

Final words

Compassion tends to engender visions of something beautiful, humanitarian and singly positive, but this is not the whole picture. Aristotle, who provided the definition upon which this thesis is based, reminds us that suffering is painful, so then is compassion: a painful emotion felt at another's suffering. At times deeply unpleasant and sometimes even, perhaps, ugly – a face twisted in pain can be perceived as one twisted in anger. Compassion becomes angry at the injustice and unfairness of suffering, and frustrated by a status quo that perpetuates it.

My study achieved positive outcomes with regard to the gap in the radiography literature concerning conceptualising compassion in DI. Towards the end of this project I suddenly became aware of an overwhelming despair; not at the prospect of meeting a deadline nor anxiety about the forthcoming scrutiny of my work, but about the enormity of my findings and the low likelihood of any significant change coming about as a result, despite clarity in my own mind as to what needed to change in order for my recommendations to bear fruit. I also worried that my work was already outdated; that the Francis Report recommendations had been heeded and enacted, however a recent perspective from a patient undergoing radiotherapy disabused me of this notion; their experience resonated strongly with my data (Leotin, 2019). This final quote again from a patient but this time one of my own participants restored me. Patients, as we are constantly reminded are at the centre of all we do, and it feels only right that patients should have both the first and the last words in this thesis:

"Because, do you know, when I lost my daughter, we walked on the beach endlessly, my son and me. Then I realised actually that, for the years that I've been dog walking, you walk past people and you presume they're fine but when we trudged up and down that beach, we were just falling to pieces and nobody would know and the only compassion we had was with each other so...if I'd been

alone and without my son I'd...I don't know how I would feel because there was no help, no compassion and so I think that compassion rules. We have to because life is...harsh in many respects and so where we can give compassion, let's do it." P29

References

Adams, J. and Smith, T. (2003) 'Qualitative methods in radiography research: A proposed framework', *Radiography*, 9(3), pp. 193–199. doi: 10.1016/S1078-8174(03)00061-0.

Adamson, E. and Dewar, B. (2015) 'Compassionate Care: Student nurses' learning through reflection and the use of story', *Nurse Education in Practice*. Elsevier Ltd, 15(3), pp. 155–161. doi: 10.1016/j.nepr.2014.08.002.

Andela, M., Truchot, D. and Van der Doef, M. (2016) 'Job Stressors and Burnout in Hospitals: The Mediating Role of Emotional Dissonance', *International Journal of Stress Management*, 23(3), pp. 298–317. doi: http://dx.doi.org/10.1037/str0000013.

Andersson, B. T. *et al.* (2008) 'Radiographers' areas of professional competence related to good nursing care', *Scandinavian Journal of Caring Sciences*, 22(3), pp. 401–409. doi: 10.1111/j.1471-6712.2007.00543.x.

Aristotle (1984) *Rhetoric. Complete Works*. Edited by J. Barnes. Princeton, NJ: Princeton University Press.

Arora, S. *et al.* (2010) 'Emotional intelligence in medicine: A systematic review through the context of the ACGME competencies', *Medical Education*, 44(8), pp. 749–764. doi: 10.1111/j.1365-2923.2010.03709.x.

Asch, S. E. (1956) 'Studies of independence and conformity: I. A minority of one against a unanimous majority.', *Psychological Monographs: General and Applied*, 70(9), pp. 1–70. doi: 10.1037/h0093718.

Atkinson, P. and Silverman, D. (1997) 'Kundera's immortality: The interview society and the invention of the self', *Qualitative Inquiry*, 3(3), pp. 304–325. doi: 10.1177/107780049700300304.

Augusto Landa, J. M. *et al.* (2008) 'The relationship between emotional intelligence, occupational stress and health in nurses: a questionnaire survey.', *International journal of nursing studies*, 45(6), pp. 888–901. doi: 10.1016/j.ijnurstu.2007.03.005.

Balint, E. (1969) 'The possibilities of patient-centered medicine.', Journal of the

Royal College of General Practitioners, 17(82), pp. 269–276.

Bandura, A. (1971) Social learning theory. New York: General Learning Press. doi: 10.1111/j.1460-2466.1978.tb01621.x.

Bartlett, F. . (1932) Remembering. Cambridge: Cambridge University Press.

Batson, C. (2009) 'These things called empathy: Eight related but distinct phenomena', in Decety, J. and Ickes, W. (eds) *Social Neuroscience of Emapthy*. Cambridge, MA, USA: MIT Press, pp. 3–16.

Bazeley, P. (2009) 'Analysing Qualitative Data: More Than "Identifying Themes", The Malaysian Journal of Qualitative Research, 2(2), pp. 6–22.

Beauchamp, T. L. and Childress, J. F. (2001) *Principles of Biomedical Ethics*. 6th edn. Oxford: Oxford University Press.

Berger, P. L. and Luckman, T. (1967) *The Social Construction of Reality: A treatise in the sociology of knowledge*. London: Penguin.

Berwick, D. (2013) A promise to learn – a commitment to act: Improving the safety of patients in England, Department of Health. doi: 10.1136/bmjqs-2014-003702.

Blackburn, S. (2005) *The Oxford Dictionary of Philosophy*. 2nd edn. Oxford: Oxford University Press.

Blair, R. J. R. (2005) 'Responding to the emotions of others: Dissociating forms of empathy through the study of typical and psychiatric populations', *Consciousness and Cognition*, 14(4), pp. 698–718. doi: 10.1016/j.concog.2005.06.004.

Bleakley, A. (2002) 'Pre-registration house officers and ward-based learning: a new apprenticeship model', *Medical Education*, (36), pp. 9–15.

Bleakley, A. (2014) Patient-Centred Medicine in Transition: The Heart of the Matter (Advances in Medical Education). First. London: Springer.

Bleakley, A. and Marshall, R. J. (2012) 'The embodiment of lyricism in medicine and Homer', *Medical Humanities*, 38(1), pp. 50–54. doi: 10.1136/medhum-2011-010138.

Bleiker, J. et al. (2016) 'Compassionate care in radiography recruitment,

education and training: A post-Francis Report review of the current literature and patient perspectives', *Radiography*, 22(3). doi: 10.1016/j.radi.2015.12.008.

Bleiker, J. *et al.* (2018) "It's what's behind the mask": Psychological diversity in compassionate patient care', *Radiography*. doi: 10.1016/j.radi.2018.06.004.

Bleiker, J. *et al.* (2019) 'Navigating the maze: Qualitative research methodologies and their philosophical foundations', *Radiography*, 25, pp. S4–S8. doi: 10.1016/j.radi.2019.06.008.

Bleiker, J. and Knapp, K. M. (2010) A Blended Learning Approach to Teaching Psychology to Radiography Students (Final Report).

Bleiker, J., Knapp, K. M. and Frampton, I. (2011) 'Teaching patient care to students: A blended learning approach in radiography education', *Radiography*, 17(3), pp. 235–240. doi: 10.1016/j.radi.2011.01.002.

Blomberg, K. and Sahlberg-Blom, E. (2007) 'Closeness and distance: A way of handling difficult situations in daily care', *Journal of Clinical Nursing*, 16(2), pp. 244–254. doi: 10.1111/j.1365-2702.2005.01503.x.

Blumer, H. (1969) *Symbolic Interactionism: Perspective and Method.* New Jersey: Prentice Hall.

Bolderston, A. *et al.* (2018) 'Twitter journal clubs and continuing professional development: An analysis of a #MedRadJClub tweet chat', *Radiography*. Elsevier Ltd, 24(1), pp. 3–8. doi: 10.1016/j.radi.2017.09.005.

Bolderston, A., Lewis, D. and Chai, M. J. (2010) 'The concept of caring: Perceptions of radiation therapists', *Radiography*. Elsevier Ltd, 16(3), pp. 198–208. doi: 10.1016/j.radi.2010.03.006.

Bolton, S. C. and Boyd, C. (2003) 'Trolley dolly or skilled emotion manager? Moving on from as Hochschild's managed heart', *Work, Employment and Society*, 17(2), pp. 289–308. doi: 10.1177/0950017003017002004.

Booth, L. A. (2007) 'Observations and reflections of communication in health care - could Transactional Analysis be used as an effective approach?', *Radiography*, 13(2), pp. 135–141. doi: 10.1016/j.radi.2006.01.010.

Booth, L. A. (2008) 'The radiographer-patient relationship: Enhancing

understanding using a transactional analysis approach', *Radiography*, 14(4), pp. 323–331. doi: 10.1016/j.radi.2007.07.002.

Booth, L. A. and Manning, D. J. (2006) 'Observations of radiographer communication: An exploratory study using Transactional Analysis', *Radiography*, 12(4), pp. 276–282. doi: 10.1016/j.radi.2005.09.005.

BPS (2018) *Statement on qualitative research in journals*, *BPS News*. Available at: https://www.bps.org.uk/news-and-policy/statement-qualitative-research-journals (Accessed: 26 May 2018).

Bradshaw, A. (2009) 'Measuring nursing care and compassion: The McDonaldised nurse?', *Journal of Medical Ethics*, 35(8), pp. 465–468. doi: 10.1136/jme.2008.028530.

Brailsford, M., Clark, D. and Gissing, R. (2013) 'Simulation Brought To Life', *Nursing Times*, 28(1), p. 64. doi: 10.7748/ns2013.09.28.1.64.s54.

Brask, K. B. and Birkelund, R. (2014) 'Patient care in radiology - The staff's perspective', *Journal of Radiology Nursing*. Elsevier Ltd, 33(1), pp. 23–29. doi: 10.1016/j.jradnu.2013.12.001.

Braun, V. and Clarke, V. (2006a) *About thematic analysis*, *Qualitative Research in Psychology*. doi: 10.1191/1478088706qp063oa.

Braun, V. and Clarke, V. (2006b) 'Using Thematic Analysis in Psychology', *Qualitative Research in Psychology*, 3, pp. 77–101.

Braun, V. and Clarke, V. (2013) *Successful Qualitative Research*. London: Sage Publications Ltd.

Braun, V. and Clarke, V. (2014) 'What Can Thematic Analysis Offer Health and Wellbeing Researchers?', *International Journal of Qualitative Studies on Health and Well-being*, 9, p. 26152. doi: 10.3402/qhw.v9.26152.

Braun, V. and Clarke, V. (2017) 'Evaluating and reviewing TA research: A checklist for editors and reviewers', *University of Auckland Website*. Auckland: University of Auckland. Available at: https://cdn.auckland.ac.nz/assets/psych/about/our-research/documents/TA website update 10.8.17 review checklist.pdf.

Brinkmann, S. and Kvale, S. (2005) 'Confronting the ethics of qualitative research', *Journal of Constructivist Psychology*, 18(2), pp. 157–181. doi: 10.1080/10720530590914789.

Britten, N. (1995) 'Qualitative interviews in medical research', *BMJ*, 311(6999), pp. 251–253. doi: 10.1136/bmj.311.6999.251.

Britten, N. (2005) 'Making sense of qualitative research: A new series', *Medical Education*, 39(1), pp. 5–6. doi: 10.1111/j.1365-2929.2004.02024.x.

Brook, P. (2005) 'In critical defence of "emotional labour": Refuting Bolton's critique of Hochschild's concept', (2005), pp. 1–23. doi: 10.1177/0950017009337071.

Brown, R. and Kulik, J. (1982) 'Flashbulb Memory', in Neisser, U. (ed.) *Memory Observed*. W.H. Freeman.

Bryman, A. (2016) *Social Research Methods*. 5th edn. Oxford: Oxford University Press.

Burnell, L. (2009) 'Compassionate Care: A Concept Analysis', *Home Health Care Management & Practice*, 21(5), pp. 319–324. doi: 10.1177/1084822309331468.

Burnell, L. and Agan, D. L. (2013) 'Compassionate Care: Can it be Defined and Measured? The Development of the Compassionate Care Assessment Tool', *International Journal of Caring Sciences*, 6(2), pp. 180–187. doi: 10.1136/medethics-2012-101048.

Cameron, R. A. *et al.* (2015) 'In search of compassion: A new taxonomy of compassionate physician behaviours', *Health Expectations*, 18(5), pp. 1672–1685. doi: 10.1111/hex.12160.

Campbell, D. (2013) 'David Cameron's prescription for NHS failings: target pay of nurses', *The Guardian*. Available at: https://www.theguardian.com/society/2013/feb/06/david-cameron-nhs-nurses (Accessed: 16 August 2019).

Campling, P. (2015) 'Reforming the culture of healthcare: the case for intelligent kindness.', *BJPsych bulletin*, 39(1), pp. 1–5. doi: 10.1192/pb.bp.114.047449.

Carey, M. A. (2016) 'Focus Groups-What Is the Same, What Is New, What Is

Next?', Qualitative Health Research, 26(6), pp. 731–733. doi: 10.1177/1049732316636848.

Carter, S. (2016) Who says in academic writing: 'I', 'the researcher', 'this study', 'this thesis'...?, DoctoralWritingSIG.

Cassell, E.J. (2005) Compassion, in Snyder, C. and Lopez, S. (eds) Handbook of Positive Psychology. First edn. Oxford: Oxford University Press

Cathie, V. et al. (2017) 'Can Compasson be Taught? A medical students' compassion discourse', *MedEdPublish*, 6(2), pp. 1–7.

CCARE (2019) About Compassion Cultivation Training (CCT) - The Center for Compassion and Altruism Research and Education. Available at: http://ccare.stanford.edu/education/about-compassion-cultivation-training-cct/ (Accessed: 24 August 2019).

CCVBP (2019) The Collaborating Centre for Values-based practice in Health and Social Care | St Catherine's College, Oxford, The Collaborating Centre for Values-based practice in Health and Social Care. Available at: https://valuesbasedpractice.org/ (Accessed: 30 July 2019).

Challen, V., Laanelaid, Z. and Kukkes, T. (2017) 'A qualitative study of perceptions of professionalism amongst radiography students', *Radiography*, 23, pp. S23–S29. doi: 10.1016/j.radi.2016.10.010.

Chang, E. M. L. *et al.* (2007) 'A survey of role stress, coping and health in Australian and New Zealand hospital nurses', *International Journal of Nursing Studies*, 44(8), pp. 1354–1362. doi: 10.1016/j.ijnurstu.2006.06.003.

Charmaz, K. (2000) 'Grounded Theory: Objectivist and Constructivist Methods', in Denzin, N. K. and Lincoln, Y. S. (eds) *Handbook of Qualitative Research*. 2nd edn. London: Sage.

Charmaz, K. (2014) Constructing Grounded Theory. 2nd edn. London: Sage.

Chief Nursing Officer (2012) Compassion in Practice. Nursing Midwifery and Care Staff: our vision and strategy.

Chochinov, H. M. (2007) 'Dignity and the essence of medicine: the A, B, C, and D of dignity conserving care', *BMJ*, 335(7612), pp. 184–7. doi: 10.1111/j.1466-

769X.2006.00285.x.

Van Der Cingel, M. (2009) 'Compassion and professional care: Exploring the domain', *Nursing Philosophy*, 10(2), pp. 124–136. doi: 10.1111/j.1466-769X.2009.00397.x.

Clarkson, M. *et al.* (2018) 'Does the intervention of mindfulness reduce levels of burnout and compassion fatigue and increase resilience in pre-registration students? A pilot study', *Radiography*. Elsevier Ltd, pp. 8–13. doi: 10.1016/j.radi.2018.08.003.

Coetzee, S. K. and Klopper, H. C. (2010) 'Compassion fatigue within nursing practice: A concept analysis', *Nursing and Health Sciences*, 12(2), pp. 235–243. doi: 10.1111/j.1442-2018.2010.00526.x.

Coffey, A. (1996) 'Qualitative data analysis: technologies and representations', *Sociological Research Online*, 1(1).

Cohen, G., Kiss, G. and Le Voi, M. (1993) *Memory*. 2nd edn. Buckingham: Open University Press.

Collins, H., Leonard-Clarke, W. and O'Mahoney, H. (2019) "Um, er": How meaning varies between speech and its typed transcript', *Qualitative Research*. doi: 10.1177/1468794118816615.

Cornwell, J. (2009) 'Exploring how to ensure compassionate care in hospital to improve patient experience', *Nursing times*, 105(15), pp. 14–16. Available at: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed12&NEW S=N&AN=355028369.

Cottingham, J. (ed.) (2008) Western Philosophy: An Anthology. 2nd edn. Wiley-Blackwell.

Cox, W. A. S., Cavenagh, P. and Bello, F. (2019) 'Is the diagnostic radiological image an underutilised resource? Exploring the literature', *Insights into Imaging*. Insights into Imaging, 10(1). doi: 10.1186/s13244-019-0707-9.

Crawford, P. *et al.* (2014) 'The design of compassionate care', *Journal of Clinical Nursing*, 23(23–24), pp. 3589–3599. doi: 10.1111/jocn.12632.

Currie, G. et al. (2017) 'Twitter Journal Club in Medical Radiation Science',

Journal of Medical Imaging and Radiation Sciences. Elsevier Inc, 48(1), pp. 83–89. doi: 10.1016/j.jmir.2016.09.001.

Dalai Lama and Cutler, H. C. (1999) *The Art of Happiness: A handbook for living*. Chatham, Kent: Hodder and Stoughton.

Denzin, N. K. (1978) Sociological Methods. New York: McGraw-Hill.

Denzin, N. K. (2008) 'Evolution of Qualitative Research', *The Sage Encyclopedia of Qualitative Research Methods*, pp. 312–319. doi: http://dx.doi.org/10.4135/9781412963909.

Denzin, N. K. (2019) 'The Death of Data in Neoliberal Times', *Qualitative Inquiry*, 25(8), pp. 721–724. doi: 10.1177/1077800419847501.

Denzin, N. K. and Lincoln, Y. S. (1994) *Handbook of Qualitative Research*. Thosuand Oaks, California: SAGE Publications.

Denzin, N. K. and Lincoln, Y. S. (eds) (2011) *The Sage Handbook of Qualitative Research*. Fourth. London: Sage.

Dewar, B. (2011) Caring about caring: An appreciative inquiry about compasssionate relationship centred care. PhD thesis, Faculty of Health, Life and Social Sciences, School of Nursing, Midwifery and Social Care, Edinburgh Napier University. Available at: http://researchrepository.napier.ac.uk/id/eprint/4845.

Dewar, B. and Cook, F. (2014) 'Developing compassion through a relationship centred appreciative leadership programme', *Nurse Education Today*. Elsevier Ltd, 34(9), pp. 1258–1264. doi: 10.1016/j.nedt.2013.12.012.

Dewar, B. and Kennedy, C. (2016) 'Strategies for Enhancing "Person Knowledge" in an Older People Care Setting', *Western Journal of Nursing Research*, 38(11), pp. 1469–1488. doi: 10.1177/0193945916641939.

Dewar, B. and Nolan, M. (2013) 'Caring about caring: Developing a model to implement compassionate relationship centred care in an older people care setting', *International Journal of Nursing Studies*, 50(9), pp. 1247–1258. doi: 10.1016/j.ijnurstu.2013.01.008.

Dey, I. (1999) 'Grounding Grounded Theory', in *Grounding Grounded Theory*. San Diego, CA: Academic Press, pp. 249–269. doi: 10.1016/B978-012214640-

4/50011-5.

Von Dietze, E. and Orb, A. (2000) 'Compassionate care: a moral dimension of nursing', *Nursing Inquiry*, 7, pp. 166–174.

Dixon-Woods, M. (2004) 'The problem of appraising qualitative research', *Quality* and Safety in Health Care, 13(3), pp. 223–225. doi: 10.1136/qshc.2003.008714.

DoH (1998) Our Healthier Nation: A Contract for Health

DoH (1999) Report of the Committee of Inquiry into the Personality Disorder Unit, Ashworth Special Hospital. Vol 1. doi: 10.1192/pb.23.8.452.

DoH (2003) Radiographer Skills Mix: A report on the four-tier service delivery model.

DoH (2004) The NHS Knowledge and Skills Framework (NHS KSF) and the Development Review Process, The NHS Knowledge and Skills Framework (NHS KSF) and the Development Review Process (October 2004). Available at: https://webarchive.nationalarchives.gov.uk/20130123204128/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH 4090843 (Accessed: 28 August 2019).

DoH (2008) The NHS Constitution. London, England

DoH (2013a) Patients First and Foremost The Initial Government Response to the Report of The Mid Staffordshire NHS Foundation Trust Public Inquiry.

DoH (2013b) The NHS Constitution. London, England.

DoH (2014a) Agenda for Change Final Agreement.

DoH (2014b) 'Dalton Review: Examining new options and opportunities for providers of NHS care - Methodology and Engagement Evidence Findings', *Department of Health*, (December), pp. 1–19.

DoH (2017a) The Ionising Radiation (Medical Exposure) Regulations 2017.

DoH (2017b) *The Ionising Radiations Regulations 2017*. Available at: http://www.legislation.gov.uk/uksi/2017/1075/pdfs/uksi 20171075 en.pdf.

Durkin, M., Gurbutt, R. and Carson, J. (2018) 'Qualities, teaching, and measurement of compassion in nursing: A systematic review', *Nurse Education*

Today. doi: 10.1016/j.nedt.2018.01.025.

Edwards, A. L. (1957) *The Social Desirability Variable in Personality Assessment and Research*. New York: Dryden.

Engel, G. L. (1997) 'The Need for a New Medical Model: A Challenge for Biomedicine', *Science*, 196(4286), pp. 129–136. doi: 10.1521/pdps.2012.40.3.377.

Eslick, G. and Raj, V. (2000) 'Occupational stress amongst Australian radiographers: prevalence, risk factors, job satisfaction and impact', *Radiographer: The Official Journal of the Australian Institute of Radiography*, 47(3), p. 129. doi: 10.1053/radi.2001.0356.

European Medicines Agency (2007) 'Guidance on Compassionate Use of Medicinal Products'.

Ferguson, E. and Johnson, J. (2014) 'Empathy: The Good, The Bad and The Ugly.', in *Positive Clinical Psychology: An Integrative Approach to Studying and Improving Wellbeing*. Wiley, pp. 1–40.

Figley, C. R. (ed.) (1983) Compassion Fatigue: Coping With Secondary Traumatic Stress Disorder In Those Who Treat The Traumatised. London: Brunner-Routledge.

Finlay, L. (2002) 'Negotiating the swamp: the opportunity and challenge of reflexivity in research practice', *Qualitative Research*, 2(2), pp. 209–230.

Firth-Cozens, J. and Cornwell, J. (2009) *The Point of Care. Enabling compassionate care in acute hospital settings, The King's Fund.* Available at: https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/pocenabling-compassionate-care-hospital-settings-apr09.pdf.

Foster, J. J. and Parker, I. (1995) Carrying out investigations in psychology: methods and statistics. BPS Books.

Fotaki, M. (2015) 'Why and how is compassion necessary to provide good quality healthcare?', *International Journal of Health Policy and Management*, 4(4), pp. 199–201. doi: 10.15171/ijhpm.2015.66.

Frampton, S. B., Guastello, S. and Lepore, M. (2013) 'Compassion as the

foundation of patient-centered care: the importance of compassion in action.', *Journal of Comparative Effectiveness Research*, 2(5), pp. 443–55. doi: 10.2217/cer.13.54.

Francis, R. (2013a) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry Executive summary. London: HMSO.

Francis, R. (2013b) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry Volume 3. London: HMSO. doi: HC 898-111.

Freeman, T. (2006) "Best practice" in focus group research: Making sense of different views', *Journal of Advanced Nursing*, 56(5), pp. 491–497. doi: 10.1111/j.1365-2648.2006.04043.x.

Freud, S. (1928) 'Humour', Int J Psycho-Analysis, 9, pp. 1–6.

Freudenberger, H. J. (1974) 'Staff Burn-Out', *Journal of Social Issues*, 30(1), pp. 159–165.

Gabriel, Y. (2015) 'Beyond Compassion: Replacing a Blame Culture With Proper Emotional Support and Management Comment on "Why and How Is Compassion Necessary to Provide Good Quality Healthcare?", *International Journal of Health Policy and Management*, 4(9), pp. 617–619. doi: 10.15171/ijhpm.2015.111.

Gainty, C. (2019) 'A Historical View on Health Care: A New View on Austerity?', *Health Care Analysis*. Springer US, 27(3), pp. 220–230. doi: 10.1007/s10728-019-00375-9.

de Galvão e Brito Medeiros, A. *et al.* (2017) 'Emotional Intelligence Development in Radiography Curricula: Results of an International Longitudinal Study', *Journal of Medical Imaging and Radiation Sciences*, 48(3), pp. 282–287. doi: 10.1016/j.jmir.2017.01.001.

Garrett, P. M. (2016) 'Questioning tales of "ordinary magic": "Resilience" and neoliberal reasoning', *British Journal of Social Work*, 46(7), pp. 1909–1925. doi: 10.1093/bjsw/bcv017.

Geertz, C. (1973) 'Thick description: toward an interpretive theory of culture', in *The interpretation of cultures: selected essays.* New York: Basic Books, pp. 3–30.

Gergen, K. J. (1985) 'The Social Constructionist Movement in Modern Psychology', *American Psychologist*, 40(3), pp. 266–275.

Gibbs, G. (1988) Learning by doing: A guide to teaching and learning methods. FEU.

Gibson, S. (2005) 'On judgment and judgmentalism: How counselling can make people better', *Journal of Medical Ethics*, 31(10), pp. 575–577. doi: 10.1136/jme.2004.011387.

Glaser, B. G. and Strauss, A. L. (1967) *The Discovery of Grounded Theory:* Strategies for Qualitative Research. New Brunswick: Transaction Publishers.

GMC (2013) The General Medical Council response to the report of the Mid-Staffordshire NHS Foundation Trust Public Inquiry.

Goetz, J. L., Keltner, D. and Simon-Thomas, E. (2010) 'Compassion: An Evolutionary Analysis and Empirical Review', *Psychol Bull*, 136(3), pp. 351–374. doi: 10.1037/a0018807.Compassion.

Goffman, E. (1959) *The Presentation of Self in Everyday Life*. New York: Doubleday Anchor Books.

Goffman, E. (1990) *The Presentation of Self in Everyday Life*. Fourth. London: Penguin.

Goleman, D. (1996) *Emotional Intelligence: Why it can matter more than IQ*. London: Bloomsbury.

Goodrich, J. (2016) 'What makes a compassionate relationship between caregiver and patient? Findings from the "anniversary" Schwartz Rounds', *Journal of Compassionate Health Care*. Journal of Compassionate Health Care, 3(1), p. 8. doi: 10.1186/s40639-016-0026-7.

Goodrich, J. and Cornwell, J. (2008) Seeing the Person in the Patient: The Point of Care Review Paper. London.

Graham, D. T., Cloke, P. and Vosper, M. (2011) *Principles and Applications of Radiological Physics*. 6th edn. Churchill Livingstone.

Granger, K. (2013) Hello My Name Is, a campaign for more compassionate care.

Available at: https://www.hellomynameis.org.uk/.

Greenhalgh, T. *et al.* (2016) 'An open letter to The BMJ editors on qualitative research.', *BMJ* (*Clinical research ed.*). British Medical Journal Publishing Group, 352, p. i563. doi: 10.1136/BMJ.I563.

Grönroos, E. and Pajukari, A. (2009) 'Job satisfaction of the radiological departments' staff', *European Journal of Radiography*. No longer published by Elsevier, 1(4), pp. 133–138. doi: 10.1016/J.EJRADI.2010.03.001.

Gross, R. D. (1987) *Psychology The Science of Mind and Behaviour*. London: Hodder and Stoughton.

Guba, E. G. and Lincoln, Y. S. (1994) 'Competing Paradigms in Qualitative Research', in Denzin, N. and Lincoln, Y. S. (eds) *Handbook of qualitative Research*. Thousand Oaks, CA: Sage.

Hafferty, F. and Franks, R. (1994) 'The hidden curriculum, ethics teaching, and the structure of medical education', *Academic medicine*, 69(11), pp. 861–871.

Halpern, J. (2003) 'What is clinical empathy?', *J Gen Intern Med*, 18, pp. 670–674. doi: 10.1046/j.1525-1497.2003.21017.x.

Handa, A., Fulford, B. and Strudwick, R. M. (2018) *Values-based Practice in Diagnostic & Therapeutic Radiography: A Training Template*. Edited by R. M. Strudwick and Association of Radiography Educators. Oxford: The Collaborating Centre for Values-based Practice in Health and Social Care.

Harper, D. (2001) Origin and meaning of compassion, Online Etymology Dictionary.

Hartmann, B., Rill, L. N. and Arreola, M. (2010) 'Workflow efficiency comparison of a new CR system with traditional CR and DR systems in an orthopedic setting', *Journal of Digital Imaging*, 23(6), pp. 666–673. doi: 10.1007/s10278-009-9213-9.

Harvey-Lloyd, J. (2018) *Being and becoming a diagnostic radiographer*. PhD thesis, School of Health Sciences, University of Brighton.

Haslam, D. (2015) "More than kindness", *Journal of Compassionate Health Care*. Journal of Compassionate Health Care, 2(1), p. 6. doi: 10.1186/s40639-015-0015-2.

Hayre, C. M. (2016) "Cranking up", "whacking up" and "bumping up": X-ray exposures in contemporary radiographic practice, *Radiography*. Elsevier Ltd, 22(2), pp. 194–198. doi: 10.1016/j.radi.2016.01.002.

Hayre, C. M., Blackman, S. and Eyden, A. (2016) 'Do general radiographic examinations resemble a person-centred environment?', *Radiography*. Elsevier Ltd, 22(4), pp. e245–e251. doi: 10.1016/j.radi.2016.07.001.

HCPC (2013) 'Standards of Proficiency (Radiographers)'. London: HCPC.

HCPC (2018) Health and Care Professions Council - About Us.

HEE (2016) 'Values Based Recruitment', pp. 1–21.

HEE (2019) Workforce Stress and the Supportive Organisation. Available at: https://www.hee.nhs.uk/sites/default/files/documents/Workforce Stress and the Supportive Organisation_0.pdf.

Heider, F. (1958) The psychology of interpersonal relations. New York: Wiley.

Helmich, E. *et al.* (2014) 'Medical students' emotional development in early clinical experience: A model', *Advances in Health Sciences Education*, 19(3), pp. 347–359. doi: 10.1007/s10459-013-9477-1.

Hendry, J. (2019) 'Promoting compassionate care in radiography – What might be suitable pedagogy? A discussion paper', *Radiography*. Elsevier Ltd, (xxxx). doi: 10.1016/j.radi.2019.01.005.

Hennink, M. M., Kaiser, B. N. and Marconi, V. C. (2016) 'Code Saturation Versus Meaning Saturation: How Many Interviews Are Enough?', *Qualitative Health Research*. doi: 10.1177/1049732316665344.

HMSO (1996) The National Health Service: A Service with Ambitions. London.

HMSO (1998) Our Healthier Nation: A Contract for Health. London.

Hochschild, A. R. (1983) *The Managed Heart: commercialisation of human feeling*. Berkley: University of California Press.

Hochschild, A. R. (2015) 'The Managed Heart', in Wharton, A. S. (ed.) *Working in America: Continuity, Conflict, and Change in a New Economic Era.* 4th edn. New York: Routledge, pp. 29–36. doi: 10.4324/9781315631011.

Hojat, M. *et al.* (2009) 'The devil is in the third year: A longitudinal study of erosion of empathy in medical school', *Academic Medicine*, 84(9), pp. 1182–1191. doi: 10.1097/ACM.0b013e3181b17e55.

Holton, G. (1975) 'On the Role of Themata in Scientific Thought', *Science*, 188(4186), pp. 328–334.

HPC (2008) Standards of Conduct, Performance and Ethics. London: HPC

Huberman, M. and Miles, M. (1994) 'Data management and analysis methods', in Denzin, N. K. and Lincoln, Y. S. (eds) *Handbook of qualitative research*. CA: Thousand Oaks, SAGE Publications Ltd.

Hutton, D. *et al.* (2014) 'Audit of the job satisfaction levels of the UK radiography and physics workforce in UK radiotherapy centres 2012.', *The British Journal of Radiology*, 87(1039), p. 20130742. doi: 10.1259/bjr.20130742.

Hutton, D. and Eddy, A. (2013) 'How was it for you? What factors influence job satisfaction for band 5 and 6 therapeutic radiographers', *Radiography*. Elsevier Ltd, 19(2), pp. 97–103. doi: 10.1016/j.radi.2012.10.002.

Hyde, E. (2015) 'A critical evaluation of student radiographers' experience of the transition from the classroom to their first clinical placement', *Radiography*. Elsevier Ltd, 21(3), pp. 242–247. doi: 10.1016/j.radi.2014.12.005.

Hyde, E. (2016) 'The impact of curriculum development and changes to placement support for first clinical placement', *Imaging & Therapy Practice*, (July).

Hyde, E. and Strudwick, R. M. (2017) 'How Prepared Are Students for the Workplace?', *Imaging & Therapy Practice*, 1(September), pp. 5–11. Available at: http://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=ccm&A N=125444229&site=ehost-live&scope=site&custid=ns206789.

lles, V. (2013) We need to talk about Francis, reallylearning.com. Available at: www.reallylearning.com.

Illich, I. (1976) *Limits to Medicine. Medical nemesis: The expropriation of health.*London: Penguin Group.

Innes, J. M. (1998) 'A qualitative insight into the experiences of postgraduate radiography students: causes of stress and methods of coping', *Radiography*, 4,

pp. 89-100.

Janis, I. L. (1971) 'Groupthink', *Psychology Today*, 5(6), pp. 43–46.

Joffe, H. (2012) 'Thematic Analysis', in Harper, D. and Thompson, A. (eds) Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners. Chichester: Wiley-Blackwell, pp. 209–223.

Johnson, M. (2004) 'Real-world ethics and nursing research', *Journal of Research in Nursing*, 9(4), pp. 251–261. doi: 10.1177/136140960400900403.

Jones, E. E. and Nisbett, R. E. (1971) *The Actor and the Observer: Divergent Perceptions of the Causes of Behaviour*. Morristown, New Jersy: General Learning Press.

Keogh, B. (2013) Review into the quality of care and treatment provided by 14 hospital trusts in England: overview report, NHS England. Available at: www.nhs.uk/nhsengland/bruce-keogh.../keogh-review-final-report.pdf.

Keogh, K. (2014) 'Compassion benefits patients, but can be big emotional drain on staff.', *Nursing Standard*, 28(20), pp. 7–7.

Kerasidou, A. (2019) 'Empathy and Efficiency in Healthcare at Times of Austerity', *Health Care Analysis*. Springer US, 27(3), pp. 171–184. doi: 10.1007/s10728-019-00373-x.

King's Fund (2013) *Our response to the final report of the Mid Staffordshire NHS Foundation Trust Public Inquiry, Press release.* Available at: https://www.kingsfund.org.uk/press/press-releases/our-response-final-report-mid-staffordshire-nhs-foundation-trust-public-inquiry.

King's Fund (2019) *Public satisfaction with the NHS and social care in 2018:* Results from the British Social Attitudes survey.

Kitzinger, J. (1994) 'The methodology of Focus Groups: the importance of interaction between research participants', *Sociology of Health & Illness*, 16(1), pp. 103–121. doi: 10.1111/1467-9566.ep11347023.

Kleinman, A. (1973) 'Medicine's symbolic reality: On a central problem in the philosophy of medicine', *Inquiry*, 16(1–4), pp. 206–213. doi: 10.1080/00201747308601685.

Kuhn, T. S. (1970) *The Structure of Scientific Revolutions, Philosophical Review.* doi: 10.1119/1.1969660.

Kurtz, S. *et al.* (2003) 'Marrying content and process in clinical method teaching: enhancing the Calgary-Cambridge guides.', *Academic medicine: journal of the Association of American Medical Colleges*, 78(8), pp. 802–9.

Kurtz, S. M. and Silverman, J. D. (1996) 'The Calgary-Cambridge Referenced Observation Guides: an aid to defining the curriculum and organizing the teaching in communication training programmes.', *Medical education*, 30(2), pp. 83–9.

Kurtz, S. M., Silverman, J. D. and Draper, J. (1998) *Teaching and Learning Communication Skills in Medicine*. Oxford: Radcliffe Medical Press.

Kvale, S. (1989) 'To Validate is to Question', in *Issues of Quality in Qualitative Research*. Lundt, Sweden: Studentlitteratur, pp. 73–92.

Kvale, S. (1996) *Interviews: an introduction to qualitative research interviewing*. London: Sage.

Lake, C. (2016) Resilience – and why it should not be essential, NHS Leadership Academy. Available at: https://www.leadershipacademy.nhs.uk/blog/resilience-not-essential/ (Accessed: 31 August 2019).

Lave, J. and Wenger, E. (1991) Situated Learning: Legitimate Peripheral Participation. Cambridge: Cambridge University Press.

Lazarus, R. S. and Folkman, S. (1984) *Stress, Appraisal and Coping*. New York: Springer.

Lehmann, P., Meystre, N. R. and Mamboury, N. (2015) 'Factors for lifelong job retention among Swiss radiographers', *Radiography*. W.B. Saunders, 21(2), pp. 181–187. doi: 10.1016/J.RADI.2014.11.002.

Leotin, S. (2019) 'An Insider View of the Cancer Radiation Experience Through the Eyes of a Cancer Patient', *Journal of Patient Experience*, p. 237437351983260. doi: 10.1177/2374373519832604.

Lewis, N. J. *et al.* (2005) 'Emotional Intelligence in Medical Education: Measuring the unmeasurable?', *Advances in Health Sciences Education*, 10(4), pp. 339–355. doi: 10.1007/s10459-005-4861-0.

Lin, T. Z. and Tian, X. (2018) 'Audience Design and Context Discrepancy: How Online Debates Lead to Opinion Polarization', *Symbolic Interaction*. doi: 10.1002/symb.381.

Lincoln, Y. S. (2013) *The Constructivist Credo*. Oxford: Routledge.

Lincoln, Y. S. and Guba, E. G. (1985) *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.

Loder, E. *et al.* (2016) 'Qualitative research and the BMJ: A response to Greenhalgh and colleagues' appeal for more', *BMJ* (*Online*), 352(February), pp. 1–2. doi: 10.1136/bmj.i641.

Loewenstein, G. (2005) 'Hot-cold empathy gaps and medical decision making.', Health psychology: official journal of the Division of Health Psychology, American Psychological Association, 24(4 Suppl), pp. S49–S56. doi: 10.1037/0278-6133.24.4.S49.

Lown, B. A. (2016) 'A social neuroscience-informed model for teaching and practising compassion in health care', *Medical Education*. John Wiley & Sons, Ltd (10.1111), 50(3), pp. 332–342. doi: 10.1111/medu.12926.

Lown, B. A., Muncer, S. J. and Chadwick, R. (2015) 'Can compassionate healthcare be measured? The Schwartz Center Compassionate Care ScaleTM', *Patient Education and Counseling*. Elsevier Ireland Ltd, 98(8), pp. 1005–1010. doi: 10.1016/j.pec.2015.03.019.

Lundvall, L. L., Dahlgren, M. A. and Wirell, S. (2014) 'Professionals' experiences of imaging in the radiography process - A phenomenological approach', *Radiography*. Elsevier Ltd, 20(1), pp. 48–52. doi: 10.1016/j.radi.2013.10.002.

Maben, J., Cornwell, J. and Sweeney, K. (2010) 'In praise of compassion', *Journal of Research in Nursing*, 15(1), pp. 9–13. doi: 10.1177/1744987109353689.

MacBeth, A. and Gumley, A. (2012) 'Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology', *Clinical Psychology Review*. Elsevier Ltd, 32(6), pp. 545–552. doi: 10.1016/j.cpr.2012.06.003.

Mackay, S. J. *et al.* (2012) 'A UK-wide analysis of trait emotional intelligence within the radiography profession', *Radiography*. Elsevier Ltd, 18(3), pp. 166–171. doi: 10.1016/j.radi.2011.11.009.

Mackay, S. J. *et al.* (2013) 'A comparative analysis of emotional intelligence in the UK and Australian radiographer workforce', *Radiography*. Elsevier Ltd, 19(2), pp. 151–155. doi: 10.1016/j.radi.2012.11.005.

Mackay, S. J. *et al.* (2015) 'A benchmarking and comparative analysis of emotional intelligence in student and qualified radiographers: An international study', *Journal of Medical Radiation Sciences*, 62(4), pp. 246–252. doi: 10.1002/jmrs.130.

Maizlin, N. N. and Somers, S. (2018) 'The Role of Clinical History Collected by Diagnostic Imaging Staff in Interpreting of Imaging Examinations', *Journal of Medical Imaging and Radiation Sciences*. Elsevier Inc, pp. 1–5. doi: 10.1016/j.jmir.2018.07.009.

Malterud, K., Siersma, V. D. and Guassora, A. D. (2015) 'Sample Size in Qualitative Interview Studies: Guided by Information Power', *Qualitative Health Research*. doi: 10.1177/1049732315617444.

Martin, A. J., Hogg, P. and Mackay, S. (2013) 'A mixed model study evaluating lean in the transformation of an Orthopaedic Radiology service', *Radiography*. Elsevier Ltd, 19(1), pp. 2–6. doi: 10.1016/j.radi.2012.09.005.

Mays, N. and Pope, C. (1995) 'Rigour and qualitative research', *BMJ*, 311(July), pp. 109–12.

McCann, C. M. *et al.* (2013) 'Resilience in the health professions: A review of recent literature', *International Journal of Wellbeing*, 3(1), pp. 60–81. doi: 10.5502/ijw.v3i1.4.

McLellan, E., MacQueen, K. M. and Neidig, J. L. (2003) 'Beyond the Qualitative Interview: Data Preparation and Transcription', *Field Methods*, 15(1), pp. 63–84. doi: 10.1177/1525822X02239573.

McMaster, N. and DeGiobbi, J. (2016) 'It's the Little Things: Small Gestures in Patient Care, Big Impact', *Journal of Medical Imaging and Radiation Sciences*. Elsevier Inc., 47(4), p. 298. doi: 10.1016/j.jmir.2016.10.005.

Mead, G. H. (1934) Mind, Self and Society. Chicago: University of Chicago Press.

Menzies, I. E. P. (1960) 'A Case-Study in the Functioning of Social Systems as a Defence against Anxiety', *Human Relations*, pp. 95–121. doi: 10.1177/001872676001300201.

Moher, D. *et al.* (2009) 'Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement', *BMJ*, 339.

Moon, J. A. (2004) *A Handbook of Reflective and Experiential Learning*. London: Routledge.

Moraros, J., Lemstra, M. and Nwankwo, C. (2016) 'Lean interventions in healthcare: Do they actually work? A systematic literature review', *International Journal for Quality in Health Care*, 28(2), pp. 150–165. doi: 10.1093/intqhc/mzv123.

Morgan, D. L. (2014) 'Pragmatism as a Paradigm for Social Research', *Qualitative Inquiry*, 20(8), pp. 1045–1053. doi: 10.1177/1077800413513733.

Morse, J. M. (1999) 'Myth #93: Reliability and Validity Are Not Relevant to Qualitative Inquiry', *Qualitative health research*, 9(6), pp. 717–718.

Morse, J. M. (2015) 'Critical Analysis of Strategies for Determining Rigor in Qualitative Inquiry', *Qualitative Health Research*, pp. 1049732315588501-. doi: 10.1177/1049732315588501.

Munn, Z. and Jordan, Z. (2011) 'The patient experience of high technology medical imaging: A systematic review of the qualitative evidence', *Radiography*. Elsevier Ltd, 17(4), pp. 323–331. doi: 10.1016/j.radi.2011.06.004.

Murphy, F. (2006) 'The paradox of imaging technology: A review of the literature'. Radiography', 12(2), pp169-174. doi: 10.1016/j.radi.2005.03.011.

Murphy, F. (2009) 'Act, scene, agency: The drama of medical imaging', *Radiography*. Elsevier Ltd, 15(1), pp. 34–39. doi: 10.1016/j.radi.2007.09.006.

National Institute for Health and Care Excellence (2012) 'Patient experience in adult NHS services: improving the experience of care for people using adult NHS services'. NICE.

Nelson, J. (2016) 'Using conceptual depth criteria: addressing the challenge of reaching saturation in qualitative research', *Qualitative Research*, (2010), pp. 69–71. doi: 10.1177/1468794116679873.

Neumann, M. *et al.* (2011) 'Empathy decline and its reasons: a systematic review of studies with medical students and residents.', *Academic Medicine*, 86(8), pp. 996–1009. doi: 10.1097/ACM.0b013e318221e615.

NHS England (2014) Statistics » Annual Imaging and Radiodiagnostics Data, Annual Imaging and Radiodiagnostics Data.

NHS England (2015) The principles and values of the NHS in England - NHS Choices. Department of Health.

Nisbet, H. (2008) 'A model for preceptorship - The rationale for a formal, structured programme developed for newly qualified radiotherapy radiographers', *Radiography*, 14(1), pp. 52–56. doi: 10.1016/j.radi.2006.07.004.

Nordgren, L. F., Banas, K. and MacDonald, G. (2011) 'Empathy Gaps for Social Pain: Why People Underestimate the Pain of Social Suffering', *Journal of Personality and Social Psychology*, 100(1), pp. 120–128. doi: 10.1037/a0020938.

Nortjé, N. and Hoffmann, W. A. (2018) 'Perspectives on the development of professionalism as experienced by radiography students', *Radiography*, 24(2), pp. 110–114. doi: 10.1016/j.radi.2017.09.006.

Nowell, L. S. *et al.* (2017) 'Thematic Analysis: Striving to Meet the Trustworthiness Criteria', *International Journal of Qualitative Methods*, 16(1), p. 160940691773384. doi: 10.1177/1609406917733847.

Nussbaum, M. C. (1996) 'Compassion: The Basic Social Emotion', *Social Philosophy and Policy*, 13(01), p. 27. doi: 10.1017/S0265052500001515.

Nussbaum, M. C. (2014) 'Compassion: Human and Animal', in Putnam, H., Neiman, S., and Schloss, J. P. (eds) *Understanding Moral Sentiments*. New York: Routledge, pp. 123–150. doi: 10.1093/acprof:oso/9780195325195.003.0011.

OED (no date) Oxford English dictionary (online), Oxford English Dictionary (online). Available at: http://www.oed.com/.

Owens, J., Singh, G. and Cribb, A. (2019) 'Austerity and Professionalism: Being

a Good Healthcare Professional in Bad Conditions', *Health Care Analysis*. Springer US, 27(3), pp. 157–170. doi: 10.1007/s10728-019-00372-y.

Patton, M. Q. (1999) 'Enhancing the quality and credibility of qualitative analysis.', Health services research, 34(5 Pt 2), pp. 1189–208. doi: http://dx.doi.org/10.4135/9781412985727.

Patton, M. Q. (2002) *Qualitiatve Evaluation and Research Methods*. Thousand Oaks, CA: Sage.

Peirce, C. S. (1905) 'What Pragmatism Is', *The Monist*, 15(2), pp. 161–181. doi: 10.2307/27899577.

Peterson, C., Maier, S. F. and Seligman, M. E. P. (1987) *Learned Helplessness:* A Theory for the Age of Personal Control. Oxford: Oxford University Press.

Peterson, C. and Seligman, M. E. P. (2004) Character Strengths and Virtues A Handbook and Classification. Washington, D.C.: APA Press and Oxford University Press.

Petrides, K. and Furnham, A. (2000) 'On the dimensional structure of emotional intelligence', *Personality and Individual Differences*, 29, pp. 313–320. doi: 10.1016/S0191-8869(99)00195-6.

Phillips, D. C. (1995) 'The Good, the Bad and the Ugly: The Many Faces of Constructivism', *Educational Researcher*, 24(7), pp. 5–12. Available at: http://www.jstor.org/stable/1177059.

Phillips, S. P. and Clarke, M. (2012) 'More than an education: The hidden curriculum, professional attitudes and career choice', *Medical Education*, 46(9), pp. 887–893. doi: 10.1111/j.1365-2923.2012.04316.x.

Piaget, J. and Inhelder, B. (1967) *A Child's Conception of Space*. New York: Norton.

Piemonte, N. M. (2015) 'Last Laughs: Gallows Humor and Medical Education', *Journal of Medical Humanities*, 36(4), pp. 375–390. doi: 10.1007/s10912-015-9338-4.

Pollard, N. et al. (2019) 'Patient perceptions of communication with diagnostic radiographers', Radiography. Elsevier Ltd, (xxxx). doi:

10.1016/j.radi.2019.04.002.

Pope, C. and Mays, N. (2006) *Qualitative Research in Health Care.* Third. Oxford: Blackwell.

Ramsay, M. (2014) 'Compassion and Caring: responding to Willis and Francis', *Nursing and Residential Care*, 16(2), pp. 111–2.

Raphael, B. (1986) When disaster strikes: a handbook for caring professionals. London: Harper Collins.

Reeves, P. J. (2018) 'Patient Centred Care - Myth or Reality?', in *Delivering Patient-Centred Compassionate Care*. Birmingham.

Reeves, P. J. and Decker, S. (2012) 'Diagnostic radiography: A study in distancing', *Radiography*. Elsevier Ltd, 18(2), pp. 78–83. doi: 10.1016/j.radi.2012.01.001.

Reeves, P. J. and Unett, E. M. (1999) 'Trauma radiography: speed and efficiency', *Journal of Diagnostic Radiography and Imaging*, 2(4), pp. 151–158.

Rodgers, B. L. and Knafl, K. A. (2000) *Concept development in nursing*. 2nd edn. Philadelphia: W.B. Suanders.

Rogers, C. R. (2004) On Becoming a Person: A therapist's view of psychotherapy. London: Constable.

Rose, S. A. R. (2015) Better leadership for tomorrow: NHS Leadership Review, NHS Leadership Review. doi: 10.12968/hmed.2015.76.9.496.

Rowe, S., O'Riordan, P. and Woznitza, N. (2019) 'Greater than the sum of the parts: Impact of radiographer clinical image interpretation', *Journal of Medical Radiation Sciences*, pp. 149–151. doi: 10.1002/jmrs.342.

Rutter, D. R. and Lovegrove, M. J. (2008) 'Occupational stress and its predictors in radiographers', *Radiography*, 14(2), pp. 138–143. doi: 10.1016/j.radi.2006.09.008.

Ryle, G. (1968) 'Thinking and Reflecting', *Royal Institute of Philosophy Supplements*. University of Exeter, 1(1968), pp. 210–226. doi: 10.1017/S0080443600011511.

Salovey, P. and Mayer, J. D. (1990) 'Emotional Intelligence', *Imagination Cognition and Personality*. Yale: Baywood Publishing Ltd, 9, pp. 185–211.

Sarra, A. and Feuz, C. (2017) 'Examining the Prevalence of Compassion Fatigue and Burnout in Radiation Therapists Caring for Palliative Cancer Patients', *Journal of Medical Imaging and Radiation Sciences*. Elsevier Inc, pp. 1–7. doi: 10.1016/j.jmir.2017.10.008.

Schantz, M. L. (2007) 'Compassion: A Concept Analysis', *Nursing Forum*, 42(2), pp. 48–55.

Schopf, A. C., Martin, G. S. and Keating, M. A. (2015) 'Humor as a Communication Strategy in Provider-Patient Communication in a Chronic Care Setting', Qualitative Health Research. doi: 10.1177/1049732315620773.

SCoR (2014) The Joint response of the Society of Radiographers and the College of Radiographers to the Final Report of the Independent Inquiry into care provided by Mid Staffordshire NHS Foundation Trust Executive Summary. London.

SCoR (2016) '2016-2021 Society and College of Radiographers Research Strategy'. London: Society and College of Radiographers, pp. 1–17.

Shapiro, J. (2011) 'Perspective: Does medical education promote professional alexithymia? A call for attending to the emotions of patients and self in medical training.', *Academic medicine*, 86, pp. 326–332. doi: 10.1097/ACM.0b013e3182088833.

Silverman, D. (2017) 'How was it for you? The Interview Society and the irresistible rise of the (poorly analyzed) interview', *Qualitative Research*, 17(2), pp. 144–158. doi: 10.1177/1468794116668231.

Sim, J. and Radloff, A. (2009) 'Profession and professionalisation in medical radiation science as an emergent profession', *Radiography*. Elsevier Ltd, 15(3), pp. 203–208. doi: 10.1016/j.radi.2008.05.001.

Sinclair, S., Norris, J. M., *et al.* (2016) 'Compassion: A scoping review of the healthcare literature', *BMC Palliative Care*. BMC Palliative Care, 15(1), pp. 1–16. doi: 10.1186/s12904-016-0080-0.

Sinclair, S., McClement, S., *et al.* (2016) 'Compassion in Health Care: An Empirical Model', *Journal of Pain and Symptom Management*. Elsevier Inc, 51(2), pp. 193–203. doi: 10.1016/j.jpainsymman.2015.10.009.

Sinclair, S., Torres, M. B., *et al.* (2016) 'Compassion training in healthcare: What are patients' perspectives on training healthcare providers?', *BMC Medical Education*. BMC Medical Education, 16(1), pp. 1–10. doi: 10.1186/s12909-016-0695-0.

Sinclair, S. *et al.* (2017) 'Measuring Compassion in Healthcare: A comprehensive and critical review', *The Patient*, 10(4), pp. 389–405.

Smajdor, A. (2013) 'Reification and compassion in medicine: A tale of two systems', *Clinical Ethics*, 8(4), pp. 111–118. doi: 10.1177/1477750913502620.

Smajdor, A. (2015) *Against Compassion?*, *Healthcare Values Partnership*. Available at: http://www.healthcarevalues.ox.ac.uk/against-compassion.

Smajdor, A., Stöckl, A. and Salter, C. (2011) 'The limits of empathy: Problems in medical education and practice', *Journal of Medical Ethics*, 37(6), pp. 380–383. doi: 10.1136/jme.2010.039628.

Smith, N. B. and Webb, A. (2012) 'X-ray planar radiography and computed tomography', in *Introduction to Medical Imaging*. Cambridge: Cambridge University Press, pp. 34–88. doi: 10.1017/cbo9780511760976.002.

Smithson, J. (2008) 'Focus Groups', in Alasuutari, P., Bickman, L., and Brannen, J. (eds) *Sage Handbook of Social Research Methods*. London: Sage, pp. 356–370. doi: 10.4135/9781412991841.

Snow, N. E. (1991) 'Compassion', *American Philosophical Quarterly*, 28(3), pp. 195–205.

Snyder, C. R. and Lopez, S. J. (2005) *Handbook of Positive Psychology*. Edited by C. R. Snyder and S. J. Lopez. Oxford: Oxford University Press.

Snyder, C. R. and Lopez, S. J. (2007) *Positive Psychology: The Science and Practical Explorations of Human Strengths*. Thosuand Oaks, California: SAGE Publications.

SoR (2008) 'Code of Conduct and Ethics'. London: Society of Radiographers, pp.

1–10.

SoR (2013) 'Code of Professional Conduct'. London: Society of Radiographers, pp. 1–14. Available at: http://www.ncbi.nlm.nih.gov/pubmed/24999207.

SoR (2018) What is radiography? Who are radiographers? Society of Radiographers. Available at: https://www.sor.org/about-radiography/what-radiography-who-are-radiographers.

Sprecher, S. and Fehr, B. (2005) 'Compassionate love for close others and humanity', *Journal of Social and Personal Relationships*, 22(5), pp. 629–651. doi: 10.1177/0265407505056439.

Straughair, C. (2012a) 'Exploring compassion: implications for contemporary nursing. Part 1', *British Journal of Nursing*, 21(3), pp. 160–164. doi: 10.12968/bjon.2012.21.3.160.

Straughair, C. (2012b) 'Exploring compassion: implications for contemporary nursing. Part 2', *British Journal of Nursing*, 21(4), pp. 239–244.

Strauss, A. L. and Corbin, J. M. (1990) *Basics of Qualitative Research: Grounded theory procedures and techniques*. Newbury Park CA: Sage.

Strauss, C. *et al.* (2016) 'What is compassion and how can we measure it? A review of definitions and measures', *Clinical Psychology Review*. The Authors, 47, pp. 15–27. doi: 10.1016/j.cpr.2016.05.004.

Strudwick, R. M. (2011) An Ethnographic Study of the Culture in a Diagnostic Imaging Department. DProf thesis, School of Nursing and Midwifery, University of Salford.

Strudwick, R. M. (2012a) 'Team working in diagnostic radiography – choreography or chaos?', *Imaging and Therapy Practice*.

Strudwick, R. M. (2012b) 'The Use of Dark Humour in Diagnostic Radiography', *Synergy*, February, pp. 1–16.

Strudwick, R. M. (2013) 'It's good to share', *Imaging and Therapy Practice*, (April).

Strudwick, R. M. (2014a) 'Keeping it professional', Synergy, (April).

Strudwick, R. M. (2014b) 'The radiographic image: A cultural artefact?',

Radiography, 20(2), pp. 143–147. doi: 10.1016/j.radi.2013.10.009.

Strudwick, R. M. (2016) 'Labelling patients', *Radiography*. Elsevier Ltd, 22(1), pp. 50–55. doi: 10.1016/j.radi.2015.05.004.

Strudwick, R. M., Mackay, S. J. and Hicks, S. (2012) 'Cracking Up?', *Imaging & Therapy Practice*, (February).

Strudwick, R., Mackay, S. and Hicks, S. (2011) 'Is Diagnostic Radiography a Caring Profession?', *Synergy*, (June).

Strudwick, R. and Newton-Hughes, A. (2017) 'Values-based practice in radiography', *Imaging and Therapy Practice*.

Taylor, A. et al. (2017) 'Compassion in healthcare: a concept analysis', *Journal of Radiotherapy in Practice*, pp. 1–11. doi: 10.1017/S1460396917000322.

Taylor, R. S. *et al.* (2004) 'Critical appraisal skills training for health care professionals: a randomized controlled trial [ISRCTN46272378].', *BMC medical education*, 4(1), p. 30. doi: 10.1186/1472-6920-4-30.

Thanh Le, N. T., Robinson, J. and Lewis, S. J. (2015) 'A Study of Student Radiographers' Learning Experiences in Imaging Obese Patients', *Journal of Medical Imaging and Radiation Sciences*. Elsevier Inc, 46(3), pp. S61-S68.e1. doi: 10.1016/j.jmir.2015.05.002.

Traynor, M. (2018) 'Guest editorial: What's wrong with resilience', *Journal of Research in Nursing*, 23(1), pp. 5–8. doi: 10.1177/1744987117751458.

Tugade, M. M., Fredrickson, B. L. and Barrett, L. F. (2004) 'Psychological resilience and positive emotional granularity: examining the benefits of positive emotions on coping and health.', *Journal of Personality*. Wiley Online Library, 72(6), pp. 1161–1190.

Tulving, E. (1972) 'Episodic and Semantic Memory', in Tulving, E. and Donaldson, W. (eds) *Organisation of Memory*. Academic Press.

Verrier, W. and Harvey, J. (2010) 'An investigation into work related stressors on diagnostic radiographers in a local district hospital', *Radiography*. Elsevier Ltd, 16(2), pp. 115–124. doi: 10.1016/j.radi.2009.09.005.

Vosper, M. R., Price, R. C. and Ashmore, L. A. (2005) 'Careers and destinations of radiography students from the University of Hertfordshire', *Radiography*. W.B. Saunders, 11(2), pp. 79–88. doi: 10.1016/J.RADI.2004.10.001.

Vygotsky, L. (1962) Thought and Language. MA: MIT Press.

Walker, L. O. *et al.* (2005) *Strategies for Theory Construction in Nursing*. 6th edn. New York: Pearson.

Walshe, K. (2003) Inquiries: Learning from failure in the NHS?, The Nuffield Trust.

Watson, W. H. (1975) 'The Meanings of Touch: Geriatric Nursing', *Journal of Communication*, 25(3), pp. 104–112. doi: 10.1111/j.1460-2466.1975.tb00611.x.

Weng, H. Y. *et al.* (2013) 'Compassion training alters altruism and neural responses to suffering', *Psychological Science*, 24(7), pp. 1171–1180. doi: 10.1177/0956797612469537.Compassion.

Westwood, N., Moore, M. J. and Cooke, M. (2007) 'Going lean in the NHS: How lean thinking will enable the NHS to get more out of the same resources', *NHS Institute of Innovation and Improvement*. Available at: https://www.england.nhs.uk/improvement-hub/wp-content/uploads/sites/44/2017/11/Going-Lean-in-the-NHS.pdf.

Whiting, C. (2009) 'Promoting Professionalism', *Synergy*, September. doi: 10.1080/13603108.2013.794173.

Whiting, C. (2010) 'Developing Professionalism', *Imaging & Therapy Practice*, (June).

Wilkes, L., Cowin, L. and Johnson, M. (2015) 'The reasons students choose to undertake a nursing degree', *Collegian*. Australian College of Nursing Ltd, 22(3), pp. 259–265. doi: 10.1016/j.colegn.2014.01.003.

de Witt, J. (2017) 'Preparing Diagnostic Radiography students for the experience of seeing death and dying patients in the clinical practice environment; workshop findings and the potential role of mindfulness .', 74(September 2015), p. 2015. doi: 10.13140/RG.2.2.14794.16329.

Wong, D. B. (2015) 'Growing Virtue: The Theory and Science of Developing Compassion from a Mencian Perspective', *The Philosophical Challenge from*

China, pp. 23–58. Available at: http://www.jstor.org/stable/j.ctt17kk8sb.7.

Woods, A. L., Miller, P. K. and Sloane, C. (2016) 'Patient obesity and the practical experience of the plain radiography professional: On everyday ethics, Patient positioning and infelicitous equipment', *Radiography*. Elsevier Ltd, 22(2), pp. 118–123. doi: 10.1016/j.radi.2015.09.005.

Yielder, J. (2004) 'An integrated model of professional expertise and its implications for higher education', *International Journal of Lifelong Education*, 23(1), pp. 60–80. doi: 10.1080/0260137032000172060.

Yielder, J. and Davis, M. (2009) 'Where radiographers fear to tread: Resistance and apathy in radiography practice', *Radiography*. Elsevier Ltd, 15(4), pp. 345–350. doi: 10.1016/j.radi.2009.07.002.

de Zulueta, P. (2013) 'Compassion in healthcare', *Clinical Ethics*, 8(4), pp. 87–90. doi: 10.1177/1477750913506484.

Appendices

Appendix 1 – Ethical approval letter



Our Ref: RA/CB/15/11/080(2)

4 August 2016

Mrs Jill Bleiker
PhD Student
University of Exeter Medical School
South Cloisters
St Luke's Campus
Exeter
EX1 2LU

Please reply to:
Ruth Garside, PhD, & Rob Anderson PhD
Co-chairs, UEMS Research Ethics Committee
University of Exeter Medical School
c/o Carol Barkle
Administrator to UEMS REC
Knowledge Spa
Royal Cornwall Hospital
TRURO
Cornwall
TR1 3HD

Tel: 01872 256460 Email: c.barkle@exeter.ac.uk

Dear Mrs Bleiker

Application Number: 15/11/080A2

Project Title: The conceptualisation, operationalisation and implementation of compassionate care in radiography

I am writing to confirm that I am now happy that you have addressed all the points made by the UEMS Research Ethics Committee relating to the above project. I have approved this project under Chair's Action with immediate effect and have pleasure in enclosing your Certificate of Approval.

Approval of this study will be formally ratified by the University of Exeter Medical School Research Ethics Committee at its next meeting on the 19th September 2016.

Good luck with your study.

Yours sincerely

Rob Anderson, PhD

Co-chair

University of Exeter Medical School Research Ethics Committee

University of Exeter Medical School Knowledge Spa Royal Cornwall Hospital Truro Cornwall TR1 3HD UK Tel +44 (0)1872 256460 Email: c.barkle@exeter.ac.uk

Interim Pro Vice Chancellor and Dean Professor Angela Shore

Appendix 2 – Volunteer information sheets for ex-patients



Patient Care in Medical Imaging (X-Rays)

Information Sheet for Interview Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. Here are some answers to questions that might occur to you; we would be happy to answer any other queries you may have.

What am I helping with?

This study is part of a PhD which aims to gain some understanding of what goes well when a patient has an x-ray so that radiographers and student radiographers can learn how best to care for their patients.

Why have I been asked to take part?

We are asking for your help with this because you have experience of how it feels to have been a patient who has had an x-ray in a hospital x-ray department.

If you agree to take part in this study, and there is no obligation on your part to do so, we hope that you would enjoy knowing that you are a great help and valuable contributor to research in this area and to my PhD thesis.

Who is involved in the study?

I (Jill Bleiker) am a radiographer and PhD student at the University of Exeter Medical School and my supervisors are Professor Karen Knapp, Dr Sue Hopkins and Dr Sarah Morgan-Trimmer. Only I and Dr Morgan-Trimmer will see your answers to the interview questions.

What am I being asked to do?

Should you agree to take part, I would like you to tell me about what happened and how you felt when you went to hospital for an x-ray. I will ask you a series of questions and record your answers on a voice-recording device. I will also make written notes.

How long will the interview take?

No more than 1 hour.

Can I refuse to answer any of the questions?

What sorts of questions will I be asked?

Questions will be based on your recollections of your x-ray examination. The Medical School Research Ethics Committee has reviewed the questions, but in the event that the line of questioning develops in such a way that you feel hesitant or uncomfortable, you have the right to decline to answer any particular question(s) and also that you may withdraw from the study at any stage without any disadvantage to yourself of any kind.

Can I stop the interview?

Yes, at any time

What if I get upset?

I will be asking questions about your x-ray examination and for your thoughts on this. If something comes to mind that you find upsetting we can stop talking about it immediately if you wish. I can direct you to appropriate sources of help if you feel it would be helpful to you.

What if I can't remember exactly what happened?

We may still be able to use some of the information you supply.

Is the information confidential?

Yes. I will keep your name and contact details separate from the interview recordings. The recordings will be given a numerical code and written into a document (transcribed). Dr Sarah Morgan-Trimmer is the only other person who will hear the recordings or see the transcripts. Electronic files will be stored on a computer protected with passwords and paper files will be protected in a locked store which only I will be able to access. Results of this project may be published but any data included will not be individually identifiable.

Are my expenses covered?

We will pay for your travel expenses to and from the place of interview and supply drinks and light refreshments.

Who can I contact for further information?

Jill Bleiker

PhD student

University of Exeter Medical School

Exeter EX1 2LU

Tel: 07474 540 740 E-mail: j.bleiker@exeter.ac.uk

Karen Knapp

Professor of Medical Imaging

University of Exeter Medical School

Exeter EX1 2LU

Tel: 01392 264133 E-mail: K.M.Knapp@exeter.ac.uk

Complaints

If you have any complaints about the way in which this project has been carried out please contact the Chair of the University of Exeter Medical School Research Ethics Committee:-

Ruth Garside, PhD or Rob Anderson, PhD

Co-chairs, UEMS Research Ethics Committee

Email: uemsethics@exeter.ac.uk

This study has been reviewed and approved by the University of Exeter Medical School Research Ethics Committee

UEMS REC REFERENCE NUMBER: Aug16/B/080^2

Appendix 3 – Volunteer information sheets for students



Patient Care in Medical Imaging

Information Sheet for Focus Group Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. Here are some answers to questions that might occur to you; we would be happy to answer any other queries you may have.

What am I helping with?

This study is part of a PhD which aims to gain some understanding of what goes well when a patient has an x-ray so that student radiographers can learn how best to care for their patients.

Why have I been asked to take part?

We are asking for your help with this because you have just come back from clinical placement. Your contribution to this study would be in the form of a group discussion with your student friends and colleagues about various aspects of placement; what you saw and heard, what you learned and how you felt.

If you agree to take part in this study, and there is no obligation whatsoever on your part to do so, we hope that you would enjoy knowing that you are a great help and valuable contributor to research in this area and to my PhD thesis. After the discussion is finished, you would be entitled to feed any thoughts or insights into your professional reflective practice/CPD portfolio on the understanding that no-one in the group can be identified either by name, or by something they have said. Any information you hear in the group must be kept anonymous after the discussion.

Who is involved in the study?

I (Jill Bleiker) am a radiographer and PhD student at the University of Exeter Medical School and my supervisors are Professor Karen Knapp, Dr Sue Hopkins and Dr Sarah Morgan-Trimmer. Only I and Dr Morgan-Trimmer will hear the focus group discussions or see the transcripts.

What am I being asked to do?

I would like you to discuss with your fellow students your experiences of the placement you have just completed. I will help guide the discussion with some

simple questions. I want to do this in a group so that you can discuss your thoughts with others who have been in the same situation and who therefore understand and I would like to record your answers on a voice-recording device and possibly video-record the discussion, but only if everyone agrees to it. I will also make written notes.

How long will it take?

No more than 1 hour.

Can I refuse to answer any of the questions?

Yes

What sorts of questions will I be asked?

Some will be about what you saw and learned, others will be aimed at discovering how you felt about the placement experience. The questions are there simply to guide the discussion, there are no 'trick' questions designed to catch you out. If the discussion develops in such a way that you feel hesitant or uncomfortable, you are free to decline to answer any particular question(s). You can also withdraw from the study at any stage without any disadvantage to yourself of any kind.

Can I leave the focus group?

Yes, at any time.

What if I get upset?

If something comes up in the discussion that you find upsetting, you can leave at any time. If you wish we can discuss later in private and I can direct you to appropriate sources of help.

Is the information confidential?

Yes. I will keep your name and contact details separate from the focus group recordings. The recordings will be given a numerical code and written into a document (transcribed). Electronic files will be stored on a computer protected with passwords and paper files will be protected in a locked store which only I will be able to access. Results of this project may be published but you will not be individually identifiable. It will be accessed and analysed only by me and Dr Morgan-Trimmer and research auditors. Although you will know two of my supervisors, Karen Knapp and Sue Hopkins who are also on the teaching team here, they will not see or hear any of the data (transcripts or audio recordings) from the focus groups unless something is reported which is a concern for patient or student safety. Dr Sarah Morgan-Trimmer is the only other person who will hear the recordings or see the transcripts.

Are my expenses covered?

We will endeavour to arrange focus groups at a time when you are already on campus and will supply drinks and light refreshments during the session.

Who can I contact for further information?

Jill Bleiker

PhD student

University of Exeter Medical School

Exeter EX1 2LU

Tel: 07474 540 740 E-mail: j.bleiker@exeter.ac.uk

Karen Knapp

Professor of Medical Imaging

University of Exeter Medical School

Exeter EX1 2LU

Tel: 01392 264133 E-mail: K.M.Knapp@exeter.ac.uk

Complaints

If you have any complaints about the way in which this study has been carried out please contact the Chair of the University of Exeter Medical School Research Ethics Committee:-

Ruth Garside, PhD or Rob Anderson, PhD

Co-chairs, UEMS Research Ethics Committee

Email: uemsethics@exeter.ac.uk

This project has been reviewed and approved by the University of Exeter Medical School Research Ethics Committee

UEMS REC REFERENCE NUMBER: Aug16/B/080^2

Participant information form (students) v4 June 2016

Appendix 4 – Volunteer information sheets for students



Patient Care in Medical Imaging

Information Sheet for Focus Group Participants

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. Here are some answers to questions that might occur to you; we would be happy to answer any other queries you may have.

What am I helping with?

This study is part of a PhD which aims to gain some understanding of what goes well when a patient has an x-ray so that student radiographers can learn how best to care for their patients.

Why have I been asked to take part?

We are asking for your help with this because you have experienced three clinical placements as part of your training and have an overview from your perspective of a now-qualified radiographer. Your contribution to this study would be in the form of a group discussion with your colleagues about various aspects of placement; what you saw and heard, what you learned and how you felt.

If you agree to take part in this study, and there is no obligation whatsoever on your part to do so, we hope that you would enjoy knowing that you are a great help and valuable contributor to research in this area and to my PhD thesis. After the discussion is finished, you would be entitled to feed any thoughts or insights into your professional reflective practice/CPD portfolio on the understanding that no-one in the group can be identified either by name, or by something they have said. Any information you hear in the group must be kept anonymous after the discussion.

Who is involved in the study?

I (Jill Bleiker) am a radiographer and PhD student at the University of Exeter Medical School and my supervisors are Professor Karen Knapp, Dr Sue Hopkins and Dr Sarah Morgan-Trimmer. Only I and Dr Morgan-Trimmer will hear the focus group discussions or see the transcripts.

What am I being asked to do?

I would like you to discuss with your fellow students your experiences of the placement you have just completed. I will help guide the discussion with some simple questions. I want to do this in a group so that you can discuss your thoughts with others who have been in the same situation and who therefore understand and I would like to record your answers on a voice-recording device but only if everyone agrees to it. I will also make written notes.

How long will it take?

No more than 1 hour.

Can I refuse to answer any of the questions?

Yes

What sorts of questions will I be asked?

Some will be about what you saw and learned, others will be aimed at discovering how you felt about the placement experience. The questions are there simply to guide the discussion, there are no 'trick' questions designed to catch you out. If the discussion develops in such a way that you feel hesitant or uncomfortable, you are free to decline to answer any particular question(s). You can also withdraw from the study at any stage without any disadvantage to yourself of any kind.

Can I leave the focus group?

Yes, at any time.

What if I get upset?

If something comes up in the discussion that you find upsetting, you can leave at any time. If you wish we can discuss later in private and I can direct you to appropriate sources of help.

Is the information confidential?

Yes. I will keep your name and contact details separate from the focus group recordings. The recordings will be given a numerical code and written into a document (transcribed). Electronic files will be stored on a computer protected with passwords and paper files will be protected in a locked store which only I will be able to access. Results of this project may be published but you will not be individually identifiable. It will be accessed and analysed only by me and Dr Morgan-Trimmer and research auditors. Although you will know two of my supervisors, Karen Knapp and Sue Hopkins who are also on the teaching team here, they will not see or hear any of the data (transcripts or audio recordings) from the focus groups unless something is reported which is a concern for patient or student safety. Dr Sarah Morgan-Trimmer is the only other person who will hear the recordings or see the transcripts.

Are my expenses covered?

Expenses are as covered for the assessor day.

Who can I contact for further information?

Jill Bleiker

PhD student

University of Exeter Medical School

Exeter EX1 2LU

Tel: 07474 540 740 E-mail: j.bleiker@exeter.ac.uk

Karen Knapp

Professor of Medical Imaging

University of Exeter Medical School

Exeter EX1 2LU

Tel: 01392 264133 E-mail: K.M.Knapp@exeter.ac.uk

Complaints

If you have any complaints about the way in which this study has been carried out please contact the Chair of the University of Exeter Medical School Research Ethics Committee:-

Ruth Garside, PhD or Rob Anderson, PhD

Co-chairs, UEMS Research Ethics Committee

Email: uemsethics@exeter.ac.uk

This project has been reviewed and approved by the University of Exeter Medical School Research Ethics Committee

UEMS REC REFERENCE NUMBER: Aug16/B/080^2

Appendix 5 - Consent form (interview and focus groups participants)

PROJECT TITLE: PATIENT CARE IN MEDICAL IMAGING

CONSENT FORM FOR PARTICIPANTS VERSION NUMBER: 4 DATE: June 2016

I have read the Information Sheet Version Number 4 Dated June 2016 concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:

1.	my participation in the project is entirely voluntary;				
2.	I am free to withdraw from the project at any time without any disadvantage;		Y/N		
3.	the data [audio-recordings and transcripts] will be retained in secure storage;				
4.	I can decline to answer any particular question(s) without any disadvantage to myself;				
5.	payments for travel expenses will be in line with standard Y/N University rates;				
6.	ne results of the project may be published but my anonymity vill be preserved.		Y/N		
I agree to take part in this project.					
(Printed name of participant) (Date)		(Signature of participant)			
	LDL II	Ju Bleier			
	l Bleiker				
(Printed name of researcher) (Date)		(Signature of researcher)			

This project has been reviewed and approved by the University of Exeter Medical School Research Ethics Committee

UEMS REC REFERENCE NUMBER: Aug16/B/080^2

Appendix 6 – Interview schedule

Interview Schedule/Topic Guide

Type of x-ray,

Date

Location

Greeting and introductions

"Thank you for coming and for agreeing to help with this study". Introduce myself, general questions to make the participant comfortable and put them at their ease, such as how was your journey here, would you like a cup of tea or coffee.

[Participants will not be told the research question as one of the aims of the interview is to see if they mention compassion spontaneously at Q1.]

At this point permission to record the interview will be sought and the recording device switched on. If the participant is unhappy with this, permission will be sought to take notes, with an explanation and apology that the interviewer may appear that they are not giving the participant their full attention. Participants' agreement to interviewer making notes in addition to recording the interview will be sought.

Explanations and getting started

To the participant: "As you know, I am interested in your opinions about the care you received during your (use the name of the medical imaging examination as described in the participant's own words). Do you have any questions for me before we start?" [Provide any answers required] Assure participant that they will have the opportunity to ask any further questions at the end of the interview. Clarification if needed of terminology regarding their x-ray examination and understanding of who undertook it.

Interview (see interview questions on next page)

Closing

Well, I think we have covered everything, thank you very much for your invaluable help, debrief, any further queries from the participant

Field notes to be taken with regard to:

Non-verbal cues of participants

Any final comments or remarks once interview has been concluded.

1. When you had your [use name of x-ray investigation] was there anything about what the radiographer [person who took your x-ray] said or did that you particularly appreciated?

Did they introduce themselves/did you know who they were

Anything about their manner

Smile?

Body language

The way they spoke

Anything else?

Was there anything about what the radiographer said or did that you did not appreciate?

Prompting questions:

Can you tell me some more about that?

In what way did they...?

Can you give me any examples?

How do you mean...?

Further prompt: is there anything that could have been different that could have made it a better experience for you?

Anything else?

2. What qualities or characteristics do you think a good radiographer should have?

Prompting questions:

Can you give me any examples of how a radiographer could be [use the words as given by the participant to describe any characteristics]?

Can you say which is the most important?

And which is least important?

Anything else?

3. My research is about compassion in patient care. Did you feel that you were treated with compassion when you had your [MI procedure]?

(Yes), Can you explain how compassion was shown to you?

Anything else?

(No), Could you describe how compassion could have been shown to you?

Anything else?

4. Can you tell me any words that to you mean the same as compassion?

Prompting question:

Do this/these words mean exactly the same thing or can you explain how they differ?

Any other words?

5. Here is a definition of compassion as defined by the NHS; can you say first in a yes or no answer does it fit with your experiences that we have been talking about today? (**Definition to be shown to the participant on a card for them to read, and/or read out loud if required**)

"Compassionate care ties closely with respect and dignity in that individual patients, carers and relatives must be treated with sensitivity and kindness. The business of the NHS extends beyond providing clinical care and includes alleviating pain, distress, and making people feel valued and that their concerns are important."

(http://www.nhs.uk/NHSEngland/thenhs/about/Pages/nhscoreprinciples.aspx)

Yes No

(Yes) Can you say any more about that?

(No) Can you tell me why not?

6. There are sometimes items in the newspapers and on TV or the radio about the NHS and some of those items are about compassion in patient care. Are you aware of these items?

(If yes)

What have you read/heard?

Do you have any thoughts or opinions about this?

Prompts:

in relation to own experiences,

in relation to opinions regarding the debate around the need to show compassion.

(If No)

Do you have any thoughts or opinions about compassion in patient care?

Prompts:

in relation to own experiences,

in relation to opinions regarding the debate around the need to show compassion.

Appendix 7 - Focus group schedule

Student/Graduate Focus Groups Schedule and Questions:

Before the session

Check recording equipment, check venue, comfort, temperature, refreshments, adequate seating, notepaper and pens.

Introduction to the session

Welcome and thank you for coming today and agreeing to share your experiences on placement. You don't know me very well, so if it's ok with you I'll introduce myself? My name is Jill, and a long time ago I trained to be a radiographer. Back then, we were taught to do as we were told and to take the xray for the doctor. Now, you are learning how to be a professional who can think for themselves, but who also has a responsibility to do the best they can for their patients. As radiographers we are very focussed on producing a good image but I know that I sometimes forgot that there was a person there as well as patient to be x-rayed. I taught patient care here and I know that what we teach and what happens 'out there' are sometimes not the same, so the purpose of this focus group is to explore your experiences on the placement you have just completed, together with your feelings and opinions. I want you to know that you can say anything you like about your experiences and feelings. You have all been on a first/second/third year placement but have all been in very varying locations, from big busy district general hospitals to smaller hospitals, and you have worked with a wide range of people, most of who are focussed on doing their best for the patients. There are no right and wrong answers to any questions in this focus group. Does anyone have any questions so far?

(Moderator's impact as a gendered and embodied being.)

I'm going to lay down a few rules because we only have a limited amount of time, so rule 1 is about respect: I promise that I will respect and protect your confidentiality; no-one on the MI teaching team including your clinical and academic tutors will be told about anything that you say, unless something is reported which is a concern for patient or student safety. Karen and Sue are my supervisors, but they won't be able to hear the recordings or see the transcripts

from these discussions. I have a third supervisor who is helping me with the analysis of the data but she doesn't know you, nor does she work in this building. We are back at uni, but this is nothing to do with your progress on your course; everyone's opinions and experiences are equally valid you are just contributing to my PhD. I will be recording this session to make it easier for me to transcribe it for my analysis; afterwards the recording will be deleted. Everything you say will be completely anonymous and there will be no way of identifying who said what. You might find some parts of the discussion useful for your own reflective practice; if that happening to you, I can tell you that you are welcome to use them for your professional CPD portfolio, but you must make sure that in so doing, no member of this group can be identified in any way.

Rule 2 is about respect towards each other: I want you all to feel able to speak and I am interested in everything that everyone has to say, but also am aware that some of you will be wanting to speak but think that what you have to say may not be important, or maybe even silly, or perhaps someone else says something and what you wanted to say is no longer relevant. If that is the case, make a note on the pad I have provided, then, if you don't get a chance to say it, leave me with your note. You can either write what you think or leave me a phone number or email address if you want to talk in private. Debate and disagreement are both welcome, but in a respectful atmosphere of politeness and non-judgmentalism.

(Dominant/overwhelming voices. Fear of peer group disapproval.)

Rule 3 Feel free to disagree or challenge ideas that crop up in the discussion if they do not resonate with you or your experiences, even if it feels like you're the only one in the group with those feelings. Remember though, to be polite and respectful. If you want to speak when someone else is, make a sign; wave a hand or something and I'll try to look out for you.

(Tendency to produce socially appropriate answers.)

Check that the students know each other; introductions if needed.

Consent forms distributed and signed.

Let's get started;

(For the first round of focus groups students will be naïve to the relevance of Francis Report's recommendations regarding compassion to the focus group; second and third times around students will not be naïve to the topic, so question 4 will only feature in the schedule's first round and will be removed for second and third rounds of data collection.

Key questions/aims

How do student radiographers talk about what they learned on placement, as opposed to what they learned in the academic setting - in other words how well does the theory fit with the practice?

estion to get starting to engage placement
placement
stion to focus
minds on their
lucators rather than
r other staff groups
stion exploring the
rriculum
the baseline
e of the group
tudent
hers talk about
learned on
t, as opposed to
learned in the
setting?

6, How about examples of really good, high	How do student
quality care?	radiographers talk about
	what they learned on
	placement, as opposed to
	what they learned in the
	academic setting?
7. The Francis Deposit recognized district	To inform a definition of
7, The Francis Report recommended that	To inform a definition of
there should be more compassion in	compassion in the context of
healthcare, and that in fact is the subject of	MI
my PhD. I'd like it if you could discuss	
together and come up with a definition of	
compassion that is relevant to radiography	
and based on what you have learned on this	
placement	
8, To what extent do you think compassion is	To establish opinions
a necessary part of radiographic care? Why	informing the ethical debate
do you say that?	on compassion
9, Did you see any examples of compassion	To identify
on placement?	behaviours/exemplars
10, Did you see any examples where	
compassion could have been shown but	
wasn't?	
11, (If yes) can you give me a bit more detail	To identify barriers to
Prompt - was it something about the person or	compassionate care
the situation in your view?	
12, What other words mean the same to you	To inform a model of
as compassion?	compassion in the context of
	MI
13, Now that we have talked, I wonder if your	To inform a definition of
definition of compassion is the same as the	compassion in the context of

first time I asked you. Can you discuss it together and see if it's the same definition or a new one

MI in the light of the group discussion.

Provide flipchart paper

Prompting questions:

Can you explain more fully?

How do you mean...?

In what way...?

Anything else?

<u>End of the session</u> Summarise the discussions and thank participants for their time. Reminder that the session can be recorded as a CPD activity in their portfolios and that I will be happy to sign it off.

Appendix 8 - Second cycle coding example

Code name with	Ideas from the data	Codes associated with
sources		the ideas
Understanding	From having been in the	Empathy
Onderstanding	_	Linpatity
	same or similar position or	
	situation	
	Capacity or capability?	Can compassion be
		taught
	Listening an integral part,	Listening & hearing
	then acting accordingly	
	Sensing something	Reading the patient
	Cues and hints	
		Hidden feelings (weak link)
	Understanding as the link	
	or conduit between doing	
	the job and compassion?	The job, doing the job
	A good question: how is	
	the pain?	

From having been in the same or similar position or situation

"I found that the recently graduated Exeter students that were also on placement were the absolute best people to talk to ... and they understood the

pressures that were on us. They knew what we did and didn't know, they understood how to speak to us and how to help us and to a reasonable extent allow us to make mistakes to then develop them and that was a really positive thing"

Capacity or capability?

"I don't think you can teach it, you've either got it and empathy's another thing: You've got it or you haven't got it or you can....My daughter's a clinical psychologist, you know, and I spoke to her about it and she said, 'well, you can run seminars for empathy and (unclear 00:16:58) or whatever but at the end of the day it goes back to whether that person's capable... capable of understanding others' misfortunes." P27

"As a lecturer a big aim is hoping students understand all elements of patients' lives not just what walks in the door" RadTweet

Capacity? Esp. when busy?

"They were quite business-like and efficient but they had absolutely no comprehension whatsoever of standing on my toes was gonna be agony..."
P28

"Time, effort & understanding. Being able to care for the patient throughout their visit can be very rewarding for both parties" RadTweet

Listening an integral part,

"I see compassion as being more having an understanding of what someone's going through and caring about it" P06

"if you go in and you've...nobody's...you feel like people aren't listening to you and you think you're going mad.. It makes you feel better knowing that somebody understands and that's half the battle when you're not well or you've got a disability or something, is having that understanding." P07

Plus acting accordingly, not ignoring or dismissing what was just said

"Listening to what they're saying to so if they say, 'I can't do that, it hurts', actually take that into account..." FG1

"And they listened which...very important, because I was...if anything, even a feather touched my foot it was painful so they really took heed of what I was saying which is" P14

Sensing something

"... if you've got someone who definitely doesn't want to be there, you're being compassionate by being as, like, pragmatic with them as possible and if they give of the impression of, like, just get this done so I can go, and you receive that as like, okay, let's get this done so you can go, you're still being compassionate because you're understanding their needs." FG1+2

"The patient is a person and I...each one that comes through the door is gonna be totally different to the one you've seen and the one you're going to see. That (unclear 00:09:47) and the difference that that radiographer can make to that person...that person could be, it could be, the person could be first time visiting an X-ray department. It could be somebody who's conscious but may not show the anxiety in the way that, you know ...like that... you've got to be able to recognise the symptoms." P25

"Compassion is not just an isolated thing. Compassion is a universal thing, it starts from the time, compassion to a patient going, whether it's out-patients or in-patients, starts from the time you walk through the door. It's... compassion is being able to understand the individual's needs, the individual's requirements but within the confines of what you're trying to do." P25

"My understanding of compassion... I think it's an understanding of what you're going though, perhaps, and being able to comfort you when you're going through a difficult time." P27

Cues and hints

"my movement was quite limited and she was quite understanding of that" P07

"I felt like there possibly wasn't the understanding that they'd just taken the plaster off and I feel like I'm going to die or someone's gonna hit me, that's....I'm... but you're frightened of someone going near it" P07

"the first time she was amazing 'cos I was a little bit teary because it was suddenly...I knew I was gonna to have..." P07

"No warmth or understanding or that actually, 'dislocating your knee hurts like hell', and 'you're probably gonna be in pain'..." P11

Understanding as the link or conduit between doing the job and compassion? In response to the ethical question of whether compassion is needed in every case or whether a timely, efficient and proficient examination is sufficient the patient articulated the essence of what I have been grappling with in terms of the job – the elements of technical task and the human:

"No, you really don't, [just need someone to do the job timely and proficiently] you need somebody to say, 'yes, I understand." P03

"...the actual woman who did the X-ray she was, she was alright but she was somewhat aloof, I think. I think I would say that that was the case. She was... the things she got me to do to get the picture she wanted, she didn't seem to understand that it was awkward or it hurt or anything like that" P09

The patient noticed that radiography differed to other health care professions in terms of the briefness of the interaction and its place in the bigger picture of the whole experience

"I guess with radiography, it's slightly different because it's such a brief, it's such a brief part of what goes on and also there is no consultation as part of it, is there, so they are doing a physical... they have a physical task to do and you're not expecting a consultation. You just want...but if they offer a bit of humanity then that's always welcome because you're never feeling massively chuffed with yourself when you going into be X-rayed, something horrible's gone wrong or..." P03

A good question: how / where is the pain?

"...and so, it's just about understanding that... the sensitivities of people and their pain threshold 'cos, I mean, I've got quite a high pain threshold but if I hadn't have had a... so pain threshold is also, I think, they need to understand that." P07

"No warmth or understanding or that actually, 'dislocating your knee hurts like hell', and 'you're probably gonna be in pain'..." P11

"And asking you if there was any particular positions you were gonna find uncomfortable so that they could...understand..." P20